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TECHNOLOGICAL REPORTS
ON
TRADE VARIETIES OF
INDIAN COTTONS,
1937

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INTRODUCTION.

ONE of the main functions of the Technological Laboratory is to undertake under known and reproducible conditions, spinning tests on Indian cottons. Upto 1929, these tests were confined mostly to samples supplied by cotton breeders and agricultural officers of the Provincial Agricultural Departments. These samples represented, either new varieties which were under trial or cottons grown in connection with such field experiments as the effect of different amounts of irrigations, different rotation of crops, different dates of sowing, etc., etc. As most of the samples tested at the Laboratory for the Agricultural Departments are in the experimental stage, the results of the tests made on them are not published for general information, but are communicated only to the departments concerned. With the expansion of the Committee's schemes in the provinces and the general recognition of the importance of the Laboratory tests, the number of such samples went on increasing steadily, but there was a general feeling that the work of the Laboratory should also be made more directly useful to the trade and the industry. It was felt that this purpose would best be served by carrying out spinning tests at the Laboratory on such samples of representative trade varieties as form the bulk of the Indian cotton crop. In order to put this idea into effect arrangements were made with the East India Cotton Association, Ltd., Bombay, for the supply of fair average quality of different trade varieties of Indian cotton for which the results of spinning tests could be broadcast for general information. These tests which were first made on the 1929-30 crop, have since been repeated on the same varieties without a break in the past eight seasons. The samples for these tests are selected by the Standards Committee of the East India Cotton Association, who also very kindly value them and give their opinion regarding their staple, class, regularity, strength, etc., etc. The tests on these samples are made with two objects. In the first place, they place in the hands of the trade and the industry reliable information regarding the waste losses and the spinning performance of the chief representative types of Indian cotton. This information is available not only to merchants and spinners in India, but also to those in the foreign countries who import or wish to import Indian cotton for their use. Thus, the consumers of Indian cottons, both in India and abroad, obtain reliable information regarding the spinning quality of the different types of Indian cottons in each season. In the second place, as these tests are made every year on samples of fair average quality selected by an expert and authoritative body like the Standards Committee of the East India Cotton Association, their results taken over a number of years are useful in showing whether a particular variety of cotton is maintaining its quality or showing signs of improvement or deterioration. If any particular variety is found, from the data available for a sufficient number of years, to show signs of steady deterioration, which is regarded as being outside the seasonal fluctuation, then it is possible to undertake an investigation into the causes of this deterioration and to adopt

the necessary remedial measures. It is clear that, in the absence of any reliable data obtained under definitely known and reproducible conditions on samples of fair average quality, it would not be possible to say definitely whether or not any particular type or standard signs of deterioration. The deterioration may, then, for, from models set for a number of years during which it might have been possible to compare it by examining a supply of pure seed or development of a new type. The following is a list of cottons supplied by the East India Cotton Association, Bombay, on which tests have been made at the Laboratory:—

Cottons received from the East India Cotton Association:

- | | |
|-------------------|-------------------|
| 1. C. P. No. 1 | 14. K. J. America |
| 2. Bazar | 15. Western |
| 3. Blackish | 16. East Western |
| 4. Sackel | 17. Longy |
| 5. Lister | 18. Upland |
| 6. Mott | 19. Bayar |
| 7. Purple America | 20. K. J. No. |
| 8. Bazar | 21. Upland |
| 9. J. J. No. | 22. Upland |
| 10. Sackel | 23. K. J. No. |
| 11. Sackel | 24. A. R. K. No. |
| 12. Upland | 25. A. R. No. |
| 13. K. J. No. | 26. A. R. No. |

At the same time as the foregoing arrangement was made with the East India Cotton Association, Ltd., Bombay, it was also arranged with the Bombay Millowners' and the Ahmedabad Millowners' Associations, that some of their mill members would kindly supply to the Laboratory samples of early arrivals of different varieties of the Indian cotton crop. The object of making these tests was to place in the hands of the industry information regarding the waste losses and the spinning performance of different trade varieties in the early part of the season in order to enable the consumers to decide which of these cottons would be suitable for their mixings. These tests were begun in 1930-31, and have been continued up to the present season. In view of the fact, however, that sometimes a mill using a particular style of cotton in one season decided not to purchase the same style in the following season, a certain amount of discontinuity has occurred in some of these varieties. However, so far as possible, efforts have been made to obtain, in each season, samples of the same varieties so that the results of tests in the successive seasons may also be comparable. As regards the valuation of these samples, this was kindly done by the Grader (Major Ellis Jones) upto 1931-32, but in the following seasons the mills supplying the samples were requested to furnish their own valuation reports. The following is a list of the cottons tested at the Laboratory under this arrangement with the Bombay and Ahmedabad Millowners' Associations:—

Cottons received from the Bombay Millowners' Association :—

- | | |
|----------------------|-----------------------|
| 1. Farm Westerns | 11. Westerns |
| 2. Bailhongal | 12. Miraj |
| 3. Broach | 13. Surat |
| 4. Karunganni | 14. Navsari |
| 5. Nandyal | 15. Tiruppur Cambodia |
| 6. Northern Cambodia | 16. Hubli Kumpta |
| 7. Bengals | 17. Hubli Upland |
| 8. Khandesh | 18. Kampala (African) |
| 9. Ujjain | 19. Busoga (African) |
| 10. Moglai | 20. Jinja (African) |

During the current season Karunganni, Nandyal and Hubli Upland were not received under this head.

Cottons received from the Ahmedabad Millowners' Association :—

- | | |
|------------|---------|
| 1. Jagadia | 3. Kadi |
| 2. Bawla | |

The plan followed in presenting the results of tests carried out on these cottons is very nearly the same as that adopted in the Technological Reports on Standard Indian Cottons. Each technological report gives the grader's valuation report, spinning master's report, and the table of spinning test results which show the waste losses, number of yarn breakages in the ring frame, the actual counts spun, the results of the lea test and the ballistic test, actual number of turns per inch, front roller and spindle speeds, drafts employed, estimate of yarn neppiness and yarn evenness and the physical conditions of temperature and humidity prevailing in the spinning room and the yarn testing room. There is, however, this difference between these reports and those on the Standard Indian Cottons that as fibre tests were not made on these trade varieties, these reports do not contain the fibre test results, nor any attempt has been made to summarise the results in the form of 'remarks.'

The supply of these samples together with the valuation reports has not been free from a certain amount of extra work on the part of those who have very kindly co-operated with me in these tests. My best thanks are therefore due to the members of the Standards Committee of the East India Cotton Association, Bombay, and its office-bearers and to the mills supplying the samples. My thanks are also due to Major Ellis Jones for valuing some of the samples, to Messrs. R.P. Richardson and V. V. Gupte for supervising the spinning tests and to Mr. V. Venkataraman for assisting me in the compilation of the test result tables.

N. A.

August 1937.

1.—C. P. No. 1 COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
664	C.P. No. 1 (Fine)	Wardha	1929-30.	2137	C.P. No. 1	Panderkora	1933-34.
665	C.P. No. 1 (Superfine)	Nagpur	1929-30.	2654	"	"	1934-35.
999	C.P. No. 1	Katol	1930-31.	3110	"	Nagpur	1935-36.
1336	"	Nagpur	1931-32.	3473	"	Panderkora	1936-37.
1724	"	"	1932-33.				

I.—SPINNING TESTS.

1. Treatment :—

- (a) *Blow-Room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	C. P. No. 1.								
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white.	Creamy to creamy- white; bright.	White to creamy- white; very bright.	Brightish creamy- white.	White to creamy- white.	White; bright.	White to creamy- white; brightish.	White to creamy- white.	White to creamy- white.
Cleanliness ..	Fairly clean; fairly bright.	Clean.	Fairly clean.	Slightly stained; fairly clean.	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean.
Feel	Slightly harsh.	Typical harsh feel of its class.	Good.	Good.	Good and softish.	Rough.	Good.	Slightly rough.	Roughish.
Ginning and Neppi- ness	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	1.33 per cent. unginned seeds.	0.3 per cent. unginned.	..	..	..	..	..	..	..
Card Sliver ..	..	..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Good even.
Card Web ..	..	..	Good.	Good.	Fairly even and nep- free.	Even and nep-free.	Good.	Good.	Good; nep- free.
Weight of 10 flat strips .. ..	..	..	Very light; 12.3 grams.	15.8 grams.	16.2 grams.	15.9 grams.	16.3 grams.	12.2 grams.	14.0 grams.
Remarks .. ..	..	..	Fully-pressed.	..	..	..	..	..	..

(b) Yarn :—

	C. P. No. 1.								
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.
Evenness ..	Fairly uneven.	Fairly even.	Fairly even.	Somewhat uneven.	Fairly even.	Somewhat uneven.	Somewhat uneven.	Even.	Even.
Neppiness ..	Very little nep.	Free of nep.	Practically free.	Practically free.	Free of nep.	Nep-free.	Free of nep.	Almost free of nep.	Free of nep.
Slubbiness ..	Very little slab.	Free of slab.	..	Fairly slubby.	..	..	A little slubby.	..	..
Remarks ..	..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results.—See Table 1 on page 3.

TECHNOLOGICAL REPORTS

ON

COTTONS SUPPLIED BY

THE EAST INDIA COTTON ASSOCIATION LTD., BOMBAY.

These samples are of fair average quality of the representative trade varieties which form the bulk of the Indian Cotton crop. The samples are selected by the Standards Committee of the East India Cotton Association, who have also very kindly furnished the valuation reports regarding their staple length, class, regularity, strength, etc.

II. REPORT OF THE

		1929-30 (Fine).	1929-30 (Superfine).	
Contract valued under	..	Fine C.P. No. 1.	Fine C.P. No. 1.	Fine C
Class ..	..	..	Superfine.	Fine to
Colour ..	..	Very dull.	Little creamy.	White.
Staple Length	..	5/8".	3/4".	5/8"
" Strength	..	Fair.	Stout.	Regula
Regularity ..	..	Fairly regular.	Fairly regular.	Regula
Value above or below Contract rate	Rs. 2 off Fine C.P. Rs. 6 on Fine C.P. Rs. 2 No. 1.			
Basis ..	..	Rs. 19 on Fine Oomra No. 3.	Rs. 19 on Fine Oomra No. 3.	Rs. 10
Date of Valuation	..	18-1-30.	18-1-30.	20
Remarks ..	..	..	..	..

1934-35.	1935-36.	1936-37.
M. G. Oomra Hedge Contract No. 3, March 1935 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery.
Superfine.	Superfine to Extra Superfine.	Barley fine.
at white.	Creamish white.	Creamy-white.
5".	5/8".	5/8".
	Fair.	Medium.
	Regular.	Fairly regular.
20 on.	Rs. 22 on.	Rs. 13 on.
M. G. Oomra Hedge Contract No. 3, March 1935 delivery Rs. 226.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery Rs. 170.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery, Rs. 205.
30-1-35.	2-3-36.	28-1-37.
..

Table 1.—SPINNING TEST RESULTS FOR C. P. No. 1 COTTON.

|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

* The ring frame front roller diameter—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

2.—BERAR COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
670	Berar	(Fine)		1723	Berar	Amraoti	1932-33.
		Karanja	1929-30.	2136	"	Shegaon	1933-34.
663	"	(Superfine)		2656	"	Akote	1934-35.
		Malkapur	1929-30.	3264	"	Akola	1935-36.
1004	"	Amraoti	1930-31.	3474	"	Anjangaon	1936-37.
1335	"	Murtizapur	1931-32.				

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

BERAR.									
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	Cream - white	Creamy to creamy-white.	White to creamy-white; bright.	Creamy-white	White to creamy-white.	White; bright.	White to creamy-white.	Creamy-white.	Creamy-white to white.
Cleanliness ..	Fairly leafy.	Fairly leafy.	Trifle stained; a little leafy.	Somewhat stained; leafy.	Leafy ..	Somewhat leafy.	Leafy ..	Slightly stained; leafy.	Fairly unclean; a little stained; leaf.
Feel ..	Harsh.	On the rough side.	Slightly harsh.	Roughish ..	Good ..	Good-bodied.	Roughish ..	Good ..	Fairly good.
Ginning and Neppiness ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	..	A little knotted.	Well-ginned.
Seeds ..	1.25 per cent. unginned.	1.75 per cent. unginned.	0.75 per cent. unginned.	..	A few seeds.	..	Many unginned seeds.	..	..
Card sliver ..	..	..	..	Fairly clean ..	Clean ..	Clean ..	Clean ..	Almost clean.	Good soft contains little leaf.
Card web ..	..	..	..	Good ..	Fairly even and nep-free.	Even and nep-free.	Good ..	A little neppy and cloudy.	Good; almost nep-free.
Weight of 10 flat strips ..	..	..	..	16.4 grams ..	19.0 grams ..	14.6 grams ..	16.5 grams ..	23.3 grams.	19.4 grams.
Remarks ..	Regularity in staple length and strength of staple are both fair.	Excessive yarn breakage; spinning speed lowered.	..	Fully-pressed.	..	..	..	..	..

(b) *Yarn* :—

BERAR.									
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Almost clean.	Fairly clean.
Evenness ..	Fairly even ..	Fairly uneven	Fairly even ..	Somewhat uneven.	Fairly even ..	Fairly uneven	Somewhat uneven.	Even.	Fairly even.
Neppiness ..	A little neppy	Almost free ..	Free ..	Practically free.	Practically nep-free.	Nep-free ..	Free of nep.	Nep-free.	Free of nep.
Slubbiness ..	Fairly slubby	Trifle slubby	Somewhat slubby.	Fairly slubby.	..	..	A little slubby	..	A little slubby.
Remarks ..	..	A poor yarn; many raw spots.	..	..	..	..	..	..	..

3. *Spinning Test Details and Results.*—See Table 2 on page 6.

II. REPORT OF THE STANDARDS COMMITTEE FOR BERAR COTTON.

BERAR.									
	1929-30 (Fine).	1929-30 (Superfine).	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under ..	Fine Berar.	Fine Berar.	Fine Oomra No. 3.	F. G. M. G. Branch No. 2.	F. M. G. Oomra Hedge No. 3.	F. M. G. Oomra (Berar) No. 3.	Fine M. G. Oomra Hedge No. 3, March 1935, delivery.	Fine M. G. Oomra H. C. No. 3, July 1936, delivery.	Fine M. G. Oomra H. C. No. 3, March 1937, delivery.
Class ..	Superfine.	Superfine to Extra superfine.	Fine.	Fully good to fine.	Superfine.	Superfine.	Extra superfine.	Fine.	Fully good to fine.
Colour ..	White.	Normal.	Creamy-white.	Bluish white with yellow stains.	White.	White.	White.	Grayish white.	Dull white.
Staple length ..	5/8".	5/8".	1 1/2".	5/8".	5/8".	5/8".	5/8".	5/8".	5/8".
" strength ..	Strong.	Weakish.	Weak.	Good.	Fair.	Fair.	Fair.	Good.	Good.
Regularity ..	Irregular.	Irregular.	Irregular.	Regular.	Regular.	Regular.	Fair.	Regular.	Fairly regular.
Value above or below contract rate.	Rs. 8 on.	Rs. 5 on Fine Berar.	Rs. 1 on.	Rs. 14 off.	Rs. 5 on.	Rs. 3 on.	Rs. 7-8 on.	Par.	Pass.
Basis ..	Par. Fine No. 3.	Oomra Par. Fine No. 3.	Oomra Rs. 188.	Rs. 175.	Settlement rate of F. M. G. Oomra Hedge Contract No. 3, March 1933 delivery Rs. 167.	F. M. G. Oomra (Berar) No. 3, March 1934 delivery Rs. 190.	Fine M. G. Oomra Hedge No. 3, March 1935, delivery Rs. 220.	Fine M. G. Oomra H. C. No. 3, July 1936 delivery Rs. 205.	Fine M. G. Oomra H. C. No. 3, March 1937, delivery Rs. 205.
Date of Valuation ..	28-1-30.	18-1-30.	5-3-31.	9-5-32.	25-3-33.	7-2-34.	30-1-35.	24-6-36.	26-1-37.
Remarks ..	..	..	..	Black leaf.	..	..	..	..	..

Table 2.—SPINNING TEST RESULTS FOR BERAR COTTON.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27			RING FRAME PARTICULARS.*										YARN TEST RESULTS.										TEMPERATURE (°F)		RELATIVE HUMIDITY (%)	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	I.E.A.			BALISTO.			Evenness Class.	Steps per yard.	Turns per inch Actual.	Spinning Room.	Ginning Room.	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†						Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.						
670	Fine	1929-30	8-2-30	10A	10	11.1	9.0	0.6	19.5	110	175	..	5.21	12.63	9.9	49.5	490	9.9	168.8	1671	4	2.0	12.0	80	65	
670	Berar	1929-30	8-2-30	10B		..	..	..	..	113	194	..	5.32	14.29	9.9	83.5	827	10.1	184.0	1858	5	2.2	13.6	80	64
663	Superfine Berar	1929-30	4-2-30	10A	9	12.3	9.4	0.5	20.9	80	172	..	5.21	12.63	10.3	44.8	461	10.3	143.4	1477	6	1.5	12.0	82	67	
663	"	1929-30	4-2-30	10B		..	..	..	..	30	193	..	5.21	14.29	10.1	79.6	804	10.1	173.0	1799	0	1.8	13.6	80	65
1004	Berar	1930-31	16-3-31	10A	10	9.8	9.6	0.8	19.1	200	180	6950	5.00	12.63	10.2	31.4	320	10.3	132.8	1368	5	1.0	12.0	84	65	
1004	"	1930-31	17-3-31	10B		..	..	..	..	100	188	7250	5.10	14.29	10.2	59.0	602	10.2	186.0	1897	5	2.0	13.7	83	66
1335	Berar	1931-32	18-6-32	10A	10	8.0	10.2	0.6	17.8	145	170	5000	5.43	12.63	10.2	34.0	347	10.2	176.4	1799	5	0.5	12.2	91	69	
1335	"	1931-32	14-6-32	10B		..	..	..	..	173	182	7200	5.43	14.29	9.8	73.5	720	10.2	195.2	1991	4	1.0	13.8	88	67
1723	Berar	1932-33	1-4-33	10A	10	12.0	11.0	0.6	22.9	136	171	5850	5.10	12.63	9.8	40.5	485	9.8	198.0	1940	4	1.2	12.3	85	72	
1723	"	1932-33	1-4-33	10B		..	..	..	..	101	191	7700	5.20	11.29	9.8	84.5	828	9.9	208.4	2063	4	1.0	14.0	87	66
2136	Berar	1933-34	14-2-34	10A	10	8.0	12.3	0.4	19.6	55	176	6000	5.47	12.63	10.1	63.0	636	10.3	210.4	2167	4	1.0	12.2	82	66	
2136	"	1933-34	14-2-34	10B		..	..	..	..	44	196	7650	5.47	14.29	9.8	111.7	1095	10.0	239.2	2392	5	0.8	13.9	83	70
2656	Berar	1934-35	8-2-35	10A	10	10.2	10.7	0.3	20.0	55	180	6250	5.12	12.63	10.0	46.8	468	10.1	104.4	1063	5	1.2	12.2	83	69	
2656	"	1934-35	8-2-35	10B		..	..	..	..	36	191	7500	5.25	14.29	10.2	82.8	845	10.0	216.0	2160	5	1.0	13.8	81	68
3264	Berar	1935-36	6-7-36	10A	10	9.5	11.8	0.2	20.4	18	198	7000	5.34	12.63	10.1	62.8	634	10.2	221.6	2260	3	1.0	12.0	87	73	
3264	"	1935-36	7-7-36	10B		..	..	..	..	0	200	7850	5.34	11.29	10.1	106.0	1077	10.1	257.6	2602	3	0.6	13.6	86	75
3474	Berar	1936-37	2-2-37	8A	10	10.6	12.7	0.4	22.3	3	188	5800	4.80	11.31	8.1	58.9	477	7.9	240.8	1902	3	0.8	10.7	80	65	
3474	"	1936-37	2-2-37	8B		..	..	..	..	0	197	6350	4.80	12.63	7.9	115.9	916	7.9	200.6	2367	3	0.5	12.0	79	67
3474	"	1936-37	2-2-37	10B		..	..	..	..	45	190	7700	5.01	11.29	9.8	88.2	861	10.0	201.1	2044	1	0.5	13.7	81	69

* The ring frame front roller diameter—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

3.—KHANDESH COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
662	Khandesh (Superfine)	Dhulia.	1929-30.	1722	Khandesh	Dhulia.	1932-33.
661	" (Fine)	Amalner.	1929-30.	2138	"	"	1933-34.
1001	"	Dhulia.	1930-31.	2655	"	"	1934-35.
1432	"	Chopda.	1931-32.	3265	"	Amalner.	1935-36.
				3475	"	Chalisgaon.	1936-37.

I. SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*.—Upto 1934-35 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks. Cage exhaust, Hopper feeder Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KHANDESH.								
	1929-30. (Superfine).	1929-30. (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	.. Creamy-white; dull.	.. Creamy-white; dull.	.. White to creamy-white; fairly bright.	.. Dull creamy.	.. White to creamy-white.	.. White to creamy-white.	.. White to creamy-white.	.. Creamy-white to creamy.	.. White to creamy-white.
Cleanliness	.. Fairly leafy; a little stained.	.. Fairly leafy (very fine leaf). A trifle stained.	.. A little leafy; occasional spot of stain.	.. Leafy	.. Leafy	.. Leafy; occasionally stained.	.. Leafy	.. Leafy; stained.	.. Leafy; a trifle stained.
Feel	.. Rough	.. Roughish	.. Good	..	.. Good softish.	.. Good	.. Slightly rough.	.. Good.	.. Roughish
Ginning and neppiness.	.. Well-ginned	.. A fair amount of sand.	.. Well-ginned	.. Fairly well-ginned.	.. Well-ginned	.. Well-ginned	.. Well-ginned	.. Somewhat knotted.	.. Well-ginned.
Seeds	.. 0.9 % unginned.	.. 1 % unginned seeds.	..	.. 1.4 % unginned.	..	..	..	.. Few unginned seeds.	..
Card sliver	.. Very clean	..	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Little leafy.	.. Good; Leafy
Card web	.. Clear	.. Clear	.. First class	.. Fairly good.	.. Even and nep-free.	.. Even and nep-free.	.. Good	.. Trifle neppy and cloudy.	.. Good; nep-free a little leafy.
Weight of ten flat strips.	15.1 grams.	15.3 grams.	10.1 grams very light.	15.8 grams	14.8 grams	15.2 grams	17.1 grams	24.5 grams.	14.6 grams.
Remarks	.. Staple even and strong.	.. Staple short but regular in length and fairly strong.	..	..	..	..	..	.. A wasty sample.	..

(b) Yarn :—

	KHANDESH.								
	1929-30. (Superfine).	1929-30. (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Almost clean.	.. Clean	.. A little leafy.	.. Fairly clean.
Evenness	.. Fairly even	.. Fairly even	.. Fairly even	.. Even	.. Even	.. Fairly uneven.	.. Even in the lower count.	.. Fairly even.	.. Even.
Neppiness	.. A little neppy	.. A little neppy	.. Fairly nep-free	.. Practically nep-free.	.. Nep-free	.. Nep-free	.. Fairly free of nep.	.. Fairly free of nep.	.. Almost free of nep.
Slubbiness	.. Somewhat slubby.	.. Fairly slubby.	..	..	..	..	.. A little slubby.	..	..
Remarks	.. Slubbiness more prominent than neppiness.	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results.—See Table 3 on page 9.

II. REPORT OF THE STANDARDS COMMITTEE FOR KHANDESH COTTON.

8

KHANDESH :									
	1929-30. (Superfine.)	1929-30. (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under ..	Fine Khandesh.	Fine Khandesh.	Fine Oomra No. 3.	F. G. M. G. Broach No. 2.	Fine M. G. Oomra Hedge No. 3.	Fine M. G. Oomra (Berar) H.C. No. 3.	Fine M. G. Oomra Hedge No. 3, March 1935 delivery.	Fine M. G. Oomra H.C. No. 3, July 1936 delivery.	Fine M. G. Oomra H.C. No. 3, March 1937 delivery.
Class	Fine to Superfine.	Superfine.	Fully good.	Superfine.	Fine.	Barely fine.	Fully good.	Superfine.
Colour	Dull to average.	Dull white.	Brownish with stains.	White.	White.	Whitish.	Dull white.	Greyish.
Staple Length	1 1/2"	5/8"	9/10"	5/8"	1 1/2"	5/8"	5/8"	11/16"
Staple Strength	Fair.	Fair.	Very weak.	Fair.	Fair.	Fair.	Fair.	Good.
Regularity	Normal.	Regular.	Irregular	Regular.	Regular.	Fair.	Regular.	Regular.
Valued above or below contract rate.	..	Rs. 3 on Fine Khandesh.	Rs. 2 on.	Rs. 15 off.	Rs. 2 on.	Rs. 4 off.	Par.	Rs. 10 off.	Pass.
Basis	Rs. 7 off Fine Oomra No. 3.	Rs. 188.	Rs. 219.	Settlement rate of Fine M. G. Oomra Hedge Contract No. 3, March 1933 delivery, Rs. 197.	Fine M. G. Oomra (Berar) H.C. No. 3, March 1934 delivery, Rs. 190.	Fine M. G. Oomra Hedge Contract No. 3, March 1935 delivery, Rs. 226.	Fine M. G. Oomra H.C. No. 3, July 1936 delivery, Rs. 208.	Fine M. G. Oomra H.C. No. 3, March 1937 delivery, Rs. 205.
Date of Valuation	18-1-30.	5-3-31.	17-8-32.	25-3-33.	7-2-34.	30-1-35.	24-6-36.	26-1-37.
Remarks	Slightly black leafy.	Poor style cotton being end of season.	..	..	..	..	..

II. REPORT OF THE STANDARDS COMMITTEE FOR NANDED.

11

NANDED.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	F. G. Branch No. 2	F. G. Branch No. 2	F. G. M. G. Branch No. 2.	F. G. M. G. Branch Hedge Contract No. 2.	F. G. M. G. Branch Hedge Contract April/May 1934 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1935 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery.	F. G. M. G. Branch Hedge Contract No. 2.	
Class	Fully good to fine	Fully good	Fine	Fine	Fully good	Fine	Fine	Good.	
Colour	A little dull	Grayish	Considerably Bluish White and stains.	Bluish White	Grayish white	Grayish white	Dull whitish.	White.	
Staple Length	15/16 inch	5/8 inch	3/4 inch	7/8 inch	Full 7/8 inch	7/8 inch	7/8 inch.	7/8 inch.	
Staple Strength	Very strong	Fair	Fair	Good	Good	Good	Fair to good.	Good.	
Regularity	Regular	Irregular	Irregular	A bit irregular	Regular	Irregular	Irregular.	Slightly Irregular	
Value above or below contract rate	Rs. 40 on F. G. Branch April/May	Rs. 31 off	Rs. 15 on	Rs. 15 on	Rs. 25 on	Rs. 60 on	Rs. 25 on.	Rs. 20 on.	
Basis		Rs. 222	Rs. 175	Settlement rate of F. G. M. G. Branch Hedge Contract No. 2, April/May 1935 delivery Rs. 177.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1934 delivery Rs. 201.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1935 delivery Rs. 222.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery Rs. 180.	F. G. M. G. Branch Hedge Contract No. 2, April/May delivery very Rs. 246.	
Date of Valuation	28-1-30	5-3-31	9-5-32	25-3-33	15-3-34	20-3-35	2-3-36	10-3-37.	
Remarks	Not so silky or waxy as F. G. M. G. Latour.	Black leaf						With some black leaf.	

Table 4.—SPINNING TEST RESULTS FOR NANDED COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE, AVERAGE (°F.).	RELATIVE HUMIDITY (%).
				Mow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Packages per hour, 100 Spindles per	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	I.E.A.			HABITAT.			Evenness Class.	Neps per yard	Turns per Inch Actual.	Spinning Room.	Spinning Room.		
													Counts Actual.	Strength (lbs.)	Count-Strain (lb.)	Counts Actual.	Work of Rupture (Inch-lb.)	Count-Work Product.							
669	Nanded ..	1929-30	6-2-30	11.5	9.6	0.2	22.9	30	191	..	5.21	17.08	20.0	81.8	1036	20.4	119.2	2132	4	4.2	17.2	81	55	55	
669	Nanded ..	1929-30	7-2-30	..	..	..	..	0	193	..	5.32	20.23	19.8	84.4	1071	19.8	125.0	2175	4	4.2	19.2	82	60	60
1003	Nanded ..	1930-31	11-3-31	13.0	8.7	0.7	21.9	10	189	7400	4.07	13.02	15.1	77.0	982	12.1	205.8	2400	3½	1.7	13.4	81	68	67	
1003	Nanded ..	1930-31	10-9-31	..	..	..	..	47	100	7350	5.38	15.07	15.8	41.6	657	16.1	118.0	1900	5	3.2	15.3	80	63	66
1003	Nanded ..	1930-31	10-3-31	..	..	..	..	80	172	8300	5.53	18.10	16.8	50.4	947	16.8	119.4	2000	5	2.2	17.5	82	65	66
1338	Nanded ..	1931-32	10-5-32	9.7	10.0	0.5	19.1	87	187	7350	5.31	13.92	12.1	65.3	700	11.0	186.0	2213	3	1.2	13.4	90	67	64	
1338	Nanded ..	1931-32	18-5-32	..	..	..	..	125	178	8600	5.06	17.03	16.2	56.0	907	16.0	128.8	2061	4	1.5	17.4	91	71	60
1725	Nanded ..	1932-33	3-4-33	13.8	9.7	0.4	22.5	24	191	8150	5.43	16.97	15.8	99.1	1550	15.8	177.2	2800	3	2.0	15.2	86	65	63	
1725	Nanded ..	1932-33	3-4-33	..	..	..	..	83	186	9200	5.43	17.98	19.8	72.8	1441	20.2	120.2	2428	4	1.0	17.2	88	65	63
1725	Nanded ..	1932-33	5-4-33	..	..	..	..	82	171	9100	6.54	19.73	23.0	54.4	1300	24.1	90.6	2400	4	1.6	18.0	87	61	70
2195	Nanded ..	1933-34	20-3-34	13.8	10.9	0.6	23.0	47	193	9150	6.10	17.03	19.8	83.3	1641	19.5	134.4	2621	3	2.5	17.2	85	60	72	
2195	Nanded ..	1933-34	22-3-34	..	..	..	..	59	176	9150	6.02	19.73	23.8	62.1	1478	24.0	103.6	2496	4	3.5	19.1	84	71	72
2195	Nanded ..	1933-34	22-3-34	..	..	..	..	73	110	9000	7.57	23.11	30.2	41.6	1256	30.6	80.8	2472	0	3.0	22.2	86	70	70
2712	Nanded ..	1934-35	6-4-35	11.7	12.8	0.5	23.1	36	191	9100	5.83	17.09	20.4	63.7	1209	20.0	123.2	2464	3	4.8	17.2	83	69	65	
2712	Nanded ..	1934-35	8-4-35	..	..	..	..	45	174	9600	5.44	19.73	24.1	61.1	1332	22.9	106.0	2427	4	4.2	18.0	83	70	62
2712	Nanded ..	1934-35	8-4-35	..	..	..	..	43	139	8630	6.81	23.26	20.7	45.7	1357	29.7	85.2	2530	5	5.8	22.6	85	70	68
3111	Nanded ..	1935-36	9-3-36	0.1	8.5	0.3	17.0	5	100	9250	6.10	17.08	20.2	87.6	1770	20.6	127.4	2624	4	1.8	16.8	82	64	61	
3111	Nanded ..	1935-36	10-3-36	..	..	..	..	0	174	9100	5.78	19.73	23.7	67.2	1593	24.3	108.2	2629	4	1.2	18.8	80	67	64
3111	Nanded ..	1935-36	10-3-36	..	..	..	..	17	158	9100	7.29	21.86	30.7	41.3	1360	30.5	81.4	2483	5	2.2	21.1	81	67	63
3517	Nanded ..	1936-37	5-4-37	15.1	11.2	0.6	25.0	16	192	9100	6.10	17.08	20.1	78.3	1574	20.2	129.8	2501	3	3.5	17.2	83	65	68	
3517	Nanded ..	1936-37	1-4-37	..	..	..	..	0	172	9500	5.36	19.73	23.4	62.0	1465	21.1	104.0	2606	4	3.5	18.8	84	60	68
3517	Nanded ..	1936-37	3-4-37	..	..	..	..	36	160	9150	6.79	21.86	29.9	39.6	1184	31.3	82.0	2507	5	2.8	20.9	86	66	68

* Diameter of ring frame front roller—8 inch. Diameter of rings—1½ inch.
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

5.—LATUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
668	Latur	.. 1929-30.	2194	Latur	.. 1933-34.
1002	"	.. 1930-31.	2713	"	.. 1934-35.
1339	"	.. 1931-32.	3112	"	.. 1935-36.
1726	"	.. 1932-33.	3755	"	.. 1936-37.

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

LATUR.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
..	Creamy-white ; bright.	Creamy-white	Creamy	Dullish white to creamy-white.	Creamy-white	White to creamy-white ; brightish.	White.	Creamy-white
ss ..	Leafy ..	Leafy ; stained.	Very leafy (large size leaf) ; slightly stained.	Very leafy	Leafy ; a little stained.	Leafy ..	Very leafy ; a little stained.	Very leafy ..
ng and	Good soft	Soft silky	..	Soft ..	Good ..	Good ..	Good.	Fair ..
ess.	Very well-ginned.	Well-ginned ..	Fairly well-ginned.	Well-ginned ..	Fairly well-ginned.	Well-ginned ..	Well-ginned.	..
er	1.9% Clean	1.5% Clean	1.2% Almost clean	Somewhat leafy.	Fairly clean	Almost clean	Clean.	Some seeds Leafy ..
o ..	Clear ..	Good ..	Good ..	Even, nep-free and shed much leaf.	Good ..	Fairly good	Even ; nep-free.	Neppy ..
of ten flat	14.0 grams ; light.	17.6 grams	17.9 grams	19.5 grams	20.8 grams	20.7 grams	13.7 grams.	34.5 ..
..	Good sample ; staple fairly fine and strong.	..	..	Gave a leafy lap.	..	..	..	..

(b) Yarn :—

LATUR.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
ss ..	Clean ..	Clean ..	Fairly clean	Almost clean	A little leafy	Fairly clean	Clean.	A little leafy
s ..	Even ..	Even ..	Even ..	Even ..	Even in the two lower counts.	Even ..	Fairly even.	Fairly even
as ..	A little neppy.	A little neppy.	Almost free of nep.	Practically free of nep.	Somewhat neppy.	A little neppy.	Slightly neppy.	Neppy ..
ss ..	..	..	..	Shows an occasional slab.	..	Slightly slubby.	..	..
s ..	..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 5 on page 15.

II. REPORT OF THE STANDARDS COMMITTEE FOR LATUR.

LATUR.									
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	...	F. G. Broach No. 2 ..	F. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach Hedgo Contract No. 2.	F. G. M. G. Broach Hedgo Contract No. 2, April/May 1934 delivery.	F. G. M. G. Broach Hedgo Contract No. 2, April/May 1935 delivery.	F. G. M. G. Broach Hedgo Contract No. 2, April/May 1936 delivery.	F. G. M. G. Broach H. C. No. 2, July/August 1937 delivery.
Class	..	Fine	Fully good	Fully good to fine	Fine	Fully good	Strict fine	Fine.	Good to fully good.
Colour	..	White	Dull creamy	Considerably bluish White and stains.	White	Grey	Greyish white	Whitish.	Greyish white.
Staple Length	..	1 inch	Barely 7/8 inch	Full 7/8 inch	7/8 inch	7/8 inch	27/32 inch	7/8 inch.	13/16 inch.
Staple Strength	..	Very strong	Good	Fair	Fair	Good	Good	Good.	Moderate.
Regularity	..	Regular	Irregular	Fairly regular	Irregular	Irregular	Regular	Irregular.	Irregular.
Value above or below contract rate.	Rs. 50 on F. G. Broach April/May.	Rs. 15 off	Rs. 30 on	Rs. 30 on	Rs. 12 on	Rs. 20 on	Rs. 55 on	Rs. 30 on	Rs. 5 off.
Basis	..	..	Rs. 222	Rs. 175	..	Settlement rate of F. G. M. G. Broach Hedgo Contract No. 2, April/May 1933 delivery Rs. 177.	F. G. M. G. Broach Hedgo Contract No. 2, April/May 1935 delivery Rs. 222.	F. G. M. G. Broach Hedgo Contract No. 2, April/May 1936 delivery Rs. 189.	F. G. M. G. Broach H. C. No. 2, July/August 1937 delivery Rs. 186.
Date of Valuation	..	28-1-30	5-3-31	9-5-32	25-3-33	8-3-34	26-3-35	2-3-36.	9-8-37.
Remarks	..	Black leaf	Slightly stony and black leaf.	..	..	..	..	..	..

Table 5.—SPINNING TEST RESULTS FOR LATUR COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).		RELATIVE HUMIDITY (%)	
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 Spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	I.R.A.			BALISTIC.			Evenness Class.	Keps per Yrd.	Turns per Inch Actual.	Spiraling Room.	Testing Room.				
													Counts Nominal.	Weight of Samples, lbs.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)										Count-Work Product.
668	Latur	1929-30	6-2-30	20A	10	12.2	8.3	0.3	19.7	35	104	6.21	17.98	19.7	86.5	1704	19.9	129.4	2373	4	5.2	17.1	81	55	36		
668	Latur	1929-30	7-2-30	20B						10	193	5.32	20.23	19.8	84.6	1673	20.0	133.8	2676	4	4.2	19.2	82	60	50		
1002	Latur	1930-31	11-3-31	20	10	13.1	9.5	0.5	21.8	0	105	6.53	17.98	20.2	60.4	1402	20.0	122.2	2444	3‡	3.5	17.1	82	60	60		
1002	Latur	1930-31	14-3-31	24A						20	175	6.75	19.73	23.8	53.8	1220	21.9	97.6	2430	4‡	4.0	18.7	81	67	66		
1002	Latur	1930-31	16-3-31	24B						36	185	6.89	20.74	24.4	55.0	1342	24.9	97.2	2420	4‡	3.7	19.7	80	64	68		
1330	Latur	1931-32	18-5-32	20	10	11.0	10.1	0.6	21.2	47	194	6.31	17.98	20.1	63.2	1311	20.2	121.0	2444	4	1.5	17.4	90	71	60		
1330	Latur	1931-32	18-5-32	24A						40	169	6.91	19.73	23.7	51.4	1218	23.9	99.4	2370	4	2.0	19.0	92	66	67		
1330	Latur	1931-32	10-5-32	24B						26	174	7.08	20.74	23.6	55.8	1317	24.0	101.2	2520	5	2.0	20.0	93	65	66		
1720	Latur	1932-33	3-4-33	20	10	10.6	10.5	0.6	20.5	99	166	5.67	17.98	19.8	72.0	1426	20.0	125.4	2508	4	1.5	17.4	88	65	69		
1720	Latur	1932-33	5-4-33	24A						86	171	6.59	19.73	23.9	49.2	1176	21.1	102.4	2468	4	1.8	19.1	87	61	70		
1720	Latur	1932-33	5-4-33	24B						100	184	6.89	20.74	24.0	55.5	1352	23.7	103.2	2446	4	1.2	20.1	87	65	69		
2104	Latur	1933-34	20-3-34	20	10	14.4	12.3	0.6	25.4	73	103	6.22	17.98	20.3	72.2	1166	20.3	124.4	2525	3	2.2	17.2	85	69	72		
2104	Latur	1933-34	22-3-34	21						95	176	5.80	19.73	23.9	60.5	1440	23.6	106.0	2516	4	2.8	18.8	84	71	71		
2104	Latur	1933-34	22-3-34	30						63	140	7.35	23.11	29.6	44.2	1308	29.7	82.4	2447	6	2.2	22.1	86	70	71		
2713	Latur	1934-35	8-4-35	20	10	10.8	11.0	0.2	20.8	0	198	5.95	17.98	20.3	70.8	1620	20.6	130.0	2678	3	1.0	17.1	83	60	64		
2713	Latur	1934-35	9-4-35	24						32	176	5.80	19.73	24.1	62.6	1509	24.6	109.0	2691	4	2.0	19.0	83	65	68		
2713	Latur	1934-35	9-4-35	30						17	138	7.93	23.26	30.1	49.3	1181	30.7	90.0	2703	5	1.8	22.7	83	70	67		
3112	Latur	1935-36	10-3-36	20	10	11.6	9.2	0.3	19.9	26	160	5.80	17.98	20.3	63.3	1255	20.3	118.6	2412	4	1.8	17.3	78	61	63		
3112	Latur	1935-36	10-3-36	21						14	171	6.38	19.73	23.9	47.2	1129	24.4	96.4	2352	5	1.5	18.9	80	63	63		
3765	Latur	1936-37	18-8-37	20	10	16.3	20.1	0.4	33.4	36	200	6.07	17.98	20.3	61.6	1250	20.1	124.0	2530	4	3.8	17.0	86	74	73		
3765	Latur	1936-37	18-8-37	24						82	183	5.98	19.73	24.6	52.2	1034	25.0	98.6	2465	5	4.5	18.9	87	71	72		

† Diameter of ring frame front roller—1‡ inch.

* Diameter of ring frame front roller— $\frac{1}{2}$ inch. Diameter of rings— $\frac{1}{16}$ inch.

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

6.—MUTTIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
666	Muttia (F.G.)	Bhavnagar	1929-30	2193	Muttia	Bhavnagar	1933-34
667	" (Fine)	"	1929-30	2714	"	"	1934-35
1000	"	"	1930-31	3113	"	Amreli	1935-36
1337	"	Botad	1931-32	3546	"	Vernaval	1936-37
1885	"	Gondal	1932-33				

I.—SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Cord-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards :—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

MUTTIA.									
	1929-30 (Fully good.)	1929-30 (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
...	Creamy	Creamy; less dull than F. G.	Dull creamy-white.	Creamy-white.	Dullish creamy-white.	White to creamy-white.	Creamy-white; dullish.	White to creamy-white.	White to or my-white.
...	Very leafy	A trifle stained; very leafy.	Stained; very leafy.	Somewhat stained; very leafy—sand-like leaf.	Leafy	Stained; very leafy.	Stained; very leafy.	Stained; very leafy.	Very leafy.
...	Dull	..	Poor	..	Softish	Rough	Roughish	Somewhat softish.	Fairly good.
...	Ginning cut the seeds badly.	Ginning has knotted a good deal and cut the seeds very badly indeed.	..	..	..	..	Somewhat knotted.	Fairly well-ginned.	..
...	2.2% ginned and unginned.	4.25% ginned and unginned	0.75% seeds.	1.4% ginned and unginned.	1.5% unginned	Contains many unginned seeds.	..	..	Contains so ginned and dust.
...	Clean	..	Fairly clean.	Clean	Clean	Almost clean	Almost clean	Almost clean.	Fairly clean.
...	Clean	Somewhat neppy.	Good	Good	Good	Fairly good	Fairly good	Good.	A trifle neppy
...	13.8 grams	17 grams.	12.5 grams.	15.6 grams	21.9 grams	10.9 grams	18.4 grams	13.8 grams.	18.3 grams.
...	Very wasty; a very poor sample indeed.	..	Very wasty	Responded well to treatment	..	..	..	..	Abnormal wasty in the blow-room.

(b) Yarn :—

MUTTIA.									
	1929-30. (Fully good.)	1929-30 (Fine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
...	Clean	Clean	Clean	Clean	Clean	Clean	Almost clean	Clean.	Fairly clean.
...	Fairly even	Even	Even to fairly even.	Somewhat uneven.	Fairly even in the lower count.	Fairly even	Even	Even.	Fairly even.
...	Fairly nep-free.	Free of nep.	Fairly nep-free.	Practically free of nep.	Free of nep	Nep-free	Free of nep	Almost nep-free	Free of nep.
...	Only occasional slub.	Free of slub.	..	Fairly slubby	A trifle slubby.	..	A trifle slubby.	..	..
...	..	A good round thread.	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 6 on page 18.

Table 6.—SPINNING TEST RESULTS FOR MUTTIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										ENTER- WIND (%)	SPINNING ROOM.	TESTING ROOM.
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 Spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	L.R.A.			BALAYAGE.			Twists per yard.	Turns per inch Actual.				
															Counts Actual.	Strength (lbs.)	Count-Strength	Counts Actual.	Work Product (lb. per 100 yds.)	Count-Work Product.						
666	Muttia (Fully Good).	1929-30	5-2-30	10A	10	20.7	9.1	0.5	28.0	0	106	..	5.42	12.63	10.1	78.0	789	181.4	1869	2.2	12.1	82	86	66		
666	"	1929-30	5-2-30	100		..	..	..	..	20	103	..	5.53	11.29	9.9	115.7	1145	203.2	2032	2.7	13.7	82	83	57
667	Muttia (Fine)	1929-30	5-2-30	10A	10	20.6	9.5	0.3	29.4	10	194	..	5.42	12.63	9.8	96.7	948	207.2	2010	1.5	12.0	81	64	61		
667	"	1929-30	5-2-30	100		..	..	..	..	40	196	..	5.63	14.29	10.0	120.1	1201	207.0	2070	2.2	13.6	81	62	61
1000	Muttia	1930-31	12-3-31	10A	10	17.7	8.5	0.5	25.0	0	107	6000	5.31	12.63	9.8	112.2	1100	229.6	2227	2.2	12.0	80	67	70		
1000	Muttia	1930-31	12-3-31	14A		..	..	..	..	27	170	7500	5.42	14.98	13.9	54.3	735	135.2	1860	3.7	14.4	82	67	68
1000	Muttia	1930-31	12-3-31	14B		..	..	..	..	53	190	8750	5.42	16.85	14.4	69.3	983	135.0	1930	3.5	16.3	82	69	65
1337	Muttia	1931-32	14-5-32	10A	10	18.3	9.6	0.8	26.7	118	197	6800	5.55	12.63	10.0	65.0	650	195.0	1912	1.2	12.2	80	68	66		
1337	Muttia	1931-32	16-5-32	12B		..	..	..	..	80	190	7700	5.43	14.98	11.4	80.3	915	186.8	2110	1.2	14.0	80	67	66
1337	Muttia	1931-32	16-5-32	14B		..	..	..	..	164	178	8500	6.67	16.86	14.0	59.9	825	144.4	2070	1.0	16.5	80	68	68
1685	Muttia	1932-33	26-8-33	10A	10	13.3	12.2	0.5	24.2	127	183	6400	5.37	12.63	9.7	75.5	732	214.8	2084	0.5	12.0	86	74	70		
1685	Muttia	1932-33	26-8-33	10B		..	..	..	..	82	202	7550	5.50	13.58	10.0	88.0	880	211.6	2113	0.2	13.1	85	74	66
1685	Muttia	1932-33	26-8-33	12B		..	..	..	..	270	187	7550	5.50	14.68	12.3	50.8	736	174.0	2192	0.5	14.0	86	72	66
2193	Muttia	1933-34	20-3-34	10A	10	16.6	12.8	0.5	27.7	30	186	6400	5.57	12.63	10.1	71.7	724	202.0	2010	0.5	12.3	84	69	71		
2193	Muttia	1933-34	20-3-34	12A		..	..	..	..	87	177	6700	5.68	13.92	11.8	55.1	654	168.4	2039	0.8	13.7	84	69	69
2193	Muttia	1933-34	20-3-34	12B		..	..	..	..	80	188	7500	5.81	14.68	12.0	66.1	793	174.0	2123	0.5	14.5	84	69	69
2714	Muttia	1934-35	9-4-35	10A	10	15.8	10.4	0.2	24.7	18	183	6500	5.36	12.63	10.2	109.2	1114	231.6	2385	0.5	12.0	82	64	69		
2714	Muttia	1934-35	10-4-35	12A		..	..	..	..	0	180	6900	5.48	13.92	12.0	81.2	974	199.6	2435	0.8	13.4	83	70	68
2714	Muttia	1934-35	10-4-35	12B		..	..	..	..	0	187	7500	5.34	14.68	11.9	103.1	1251	201.6	2390	0.5	14.2	83	70	74
3113	Muttia	1935-36	12-3-36	10A	10	17.8	9.3	0.2	25.6	0	196	6000	5.21	12.63	10.2	87.7	895	209.2	2155	1.0	12.2	83	64	66		
3113	Muttia	1935-36	19-3-36	12A		..	..	..	..	22	180	6950	5.43	13.92	12.5	55.1	689	182.8	2267	1.2	13.4	87	66	64
3113	Muttia	1935-36	10-3-36	12B		..	..	..	..	0	181	7450	5.43	14.68	12.5	66.1	890	200.8	2430	1.0	14.1	88	66	71
3546	Muttia	1936-37	5-4-37	10A	10	21.7	11.9	0.3	31.2	13	201	7000	6.00	12.63	10.2	95.1	970	238.4	2300	1.0	12.1	86	65	67		
3546	Muttia	1936-37	6-4-37	12A		..	..	..	..	15	186	7200	5.43	13.92	12.2	72.7	887	194.4	2294	1.2	13.5	85	66	67
3546	Muttia	1936-37	6-4-37	12B		..	..	..	..	22	191	7700	5.54	14.68	12.3	83.1	1017	196.8	2342	1.0	14.2	84	67	69

* The ring frame front roller diameter— $\frac{1}{4}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

7.—PUNJAB-AMERICAN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
671	Punjab-American	Okara	1929-30
1046	"	"	1930-31
1352	"	Khanewal	1931-32
1882	"	Burewala	1932-33
2237	"	Khanewal	1933-34
2732	"	Chinchwatni	1934-35
3114	"	Phularwan	1935-36
3566	"	Khanpur	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

	PUNJAB-AMERICAN.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36	1936-37
Colour ..	Creamy-white	Creamy-white	Creamy-white.	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white, bright.	Creamy-white to white.
Cleanliness ..	Somewhat leafy; a good deal stained	Slightly stained, leafy.	Leafy; stained noticeably.	Somewhat leafy.	A little leafy.	Stained; fairly leafy.	A little leafy.	Fairly clean.
Feel ..	Good bodied; slightly harsh	Soft.	Softish.	Good.	Smooth good	Good.	Good smooth.	Good
Ginning and neppiness	Fairly knotted	Only fairly well ginned	Fairly well ginned.	Well ginned.	Well-ginned but a trifle knotted.	Fairly well-ginned.	Well-ginned.	Well-ginned.
Seeds ..	..	1.75% unginned.	1.1% unginned.	..	..	..	..	..
Card Sliver	..	Fairly clean	A little leafy.	Almost clean.	Clean.	Clean.	Clean.	Almost clean.
Card Web	Good clear.	Slightly cloudy and neppy.	Somewhat neppy.	Good.	A little neppy.	Good.	Good.	Good; nep free
Weight of 10 flat strips.	..	19.8 grams.	21.6 grams.	25.5 grams.	21.5 grams.	24.5 grams.	13.7 grams.	17.4 grams.
Remarks ..	Responded to treatment.	..	..	..	..	..	..	..

(b) *Yarn* :—

	PUNJAB-AMERICAN.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36	1936-37.
Cleanliness ..	Clean.	Clean but dull.	Fairly clean.	Clean.	Clean.	Almost clean.	Clean.	Slightly leafy.
Evenness ..	Fairly even.	Fairly even.	Somewhat uneven.	Fairly even.	Even in the two lower counts	Fairly even.	Even.	Fairly even.
Neppiness ..	Fairly neppy.	A trifle neppy	A little neppy.	Practically free of nep	Free of nep.	A little neppy.	Almost nep free	Almost free of nep.
Slubbiness ..	A trifle slubby.	Slubby.	Slubby.	A trifle slubby.	..	Somewhat slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 7 on page 21.

II. REPORT OF THE STANDARDS COMMITTEE FOR PUNJAB-AMERICAN.

PUNJAB-AMERICAN.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under ..	Fully Good Broach No. 2.	Fully Good M. Broach No. 2.	G. F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2, July/Aug. 1933 delivery.	F.G.M.G. Broach No. 2, Apr./May 1934.	F.G.M.G. Broach No. 2, Apr./May 1935 delivery.	F.G.M.G. Broach No. 2, Apr./May 1936 delivery.	F.G.M.G. Broach No. 2, Apr./May 1937 delivery.	
Class ..	About Superfine.	Fine.	About fully Good.	Fine.	Fine to Superfine.	Superfine.	Superfine.	Superfine.	
Colour ..	Greyish.	Bluish-white.	Dull white	Creamy-white.	Greyish white.	White.	Creamy-white.	White, very slightly creamy.	
Staple Length ..	13/16 inch.	13/16 inch.	3/4 inch.	3/4 inch.	Barely 3/4 inch.	9/16 to 3/4 inch.	13/16 inch.	Full 3/4 inch.	
Staple Strength ..	Varied.	Weakish.	Good.	Fair.	Good.	Poor.	Good.	Good.	
Regularity ..	Very irregular.	Irregular.	Somewhat irregular.	Irregular.	Irregular.	Very irregular.	Regular.	Regular.	
Value above or below contract rate	Par.	Rs. 10 on.	Rs. 10 on.	Rs. 10 on.	Rs. 15 on.	Rs. 10 on.	Rs. 25 on.	Rs. 15 on.	
Basis ..	Par, fully good Broach No. 2.	Rs. 182.	Rs. 164.	F.G.M.G. Broach No. 2, July/Aug. 1933 delivery, Rs. 207.	F.G.M.G. Broach No. 2, Apr./May 1934 delivery, Rs. 197.	F.G.M.G. Broach No. 2, Apr./May 1935 delivery, Rs. 237.	F.G.M.G. Broach No. 2, Apr./May 1936 delivery, Rs. 180.	F.G.M.G. Broach No. 2, Apr./May 1937 delivery, Rs. 250.	
Date of Valuation ..	28-1-30.	5-5-31.	30-5-32.	26-7-33.	9-4-34.	15-4-35.	2-3-36.	5-4-37.	
Remarks ..	Heavily mixed with dest.	..	..	..	..	..	..	..

Table 7.—SPINNING TEST RESULTS FOR PUNJAB-AMERICAN COTTON.

Sample No.	Cotton.	Season	Date of Spinning	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS						TEMPERATURE AND HUMIDITY (%)						
						Blow Room Loss	Card Room Loss	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	LEA			Tensile Class	Keps per yard.	Turns per inch Actual	Spinning Room	Testing Room.				
															Counts Actual	Strength (lbs)	Count Strength Product						Counts Actual.	Work of Rupture (inch lb)	Count-Work Product.	
671	Punjab American	1929-30	10-2-30	20A	9	10.4	0.3	0.8	19.4	145	180	.	5.10	17.98	19.6	40.0	913	20.2	93.2	1883	4	4.2	17.2	80	82	85
"	"	"	"	20B		.	.	.	.	130	191	.	5.10	20.23	19.8	80.7	1202	20.3	100.2	2034	5	3.5	19.2	81	83	85
1016	Punjab American	1930-31	9-5-31	16	10	11.7	11.1	0.6	21.9	60	194	9000	5.32	15.97	15.7	60.5	1044	16.2	139.0	2252	3	1.5	15.5	90	87	89
"	"	"	11-5-31	20A		.	.	.	.	110	170	8700	6.03	17.98	20.0	40.0	800	20.3	103.8	2107	4	2.2	17.3	90	85	88
"	"	"	"	20B		.	.	.	.	70	188	10700	6.03	20.23	19.0	54.1	1077	20.2	105.6	2133	5	2.5	19.5	89	86	87
1352	Punjab American	1931-32	6-6-32	16	10	11.7	11.5	0.6	22.3	16	192	8350	5.10	15.97	15.8	82.8	1308	15.7	182.0	2857	4	2.2	15.5	91	85	88
"	"	"	7-6-32	20A		.	.	.	.	105	189	9200	6.38	17.98	20.2	51.9	1048	20.4	112.4	2293	5	2.0	17.4	90	86	70
1882	Punjab American	1932-33	18-8-33	16	10	8.8	13.5	0.5	21.5	218	180	8000	5.11	15.97	15.8	63.1	997	15.5	170.0	2035	4	1.2	15.4	86	73	70
"	"	"	19-8-33	20A		.	.	.	.	228	170	8300	5.68	17.98	20.1	37.8	760	19.8	112.0	2218	5	1.6	17.0	87	68	70
2237	Punjab American	1933-34	19-4-34	16	10	7.5	10.7	0.6	17.9	24	198	8700	5.32	15.97	16.1	85.7	1371	15.8	188.2	2974	4	0.8	15.3	87	80	68
"	"	"	18-4-34	20A		.	.	.	.	67	188	9200	5.10	17.98	19.3	70.1	1353	19.5	140.4	2738	4	0.8	17.4	87	85	68
"	"	"	"	24		.	.	.	.	89	170	9500	6.25	20.74	24.3	51.4	1249	24.0	99.6	2450	6	1.0	19.8	87	67	68
2732	Punjab American	1934-35	12-6-35	12	10	7.8	11.8	0.5	19.1	73	174	6500	4.32	13.62	12.4	56.8	704	12.2	104.0	2367	4	1.0	13.1	90	89	70
"	"	"	5-6-35	16A		.	.	.	.	56	160	7100	5.54	15.97	15.6	38.9	607	15.7	122.8	1928	4	1.2	15.1	90	86	67
"	"	"	4-6-35	10B		.	.	.	.	48	176	8700	5.76	17.98	16.8	45.8	789	16.5	127.0	2105	4	1.0	16.9	90	87	68
3114	Punjab American	1935-36	12-3-36	16	10	8.6	10.0	0.3	18.0	0	197	8650	5.55	15.97	16.1	102.1	1044	16.0	204.0	3264	3	1.0	15.5	81	82	60
"	"	"	"	20		.	.	.	.	10	190	9350	5.31	17.98	20.0	76.3	1528	19.9	141.6	2818	3	1.0	17.5	80	80	62
"	"	"	"	24		.	.	.	.	27	171	9300	6.34	19.73	24.1	58.2	1403	23.6	115.6	2728	4	1.2	19.0	82	82	72
3506	Punjab American	1936-37	15-4-37	16	10	8.5	10.2	0.4	18.1	18	193	8950	5.57	15.97	16.4	90.7	1487	16.1	207.6	3342	3	1.2	15.1	90	88	68
"	"	"	14-4-37	20		.	.	.	.	36	192	9500	5.00	17.98	20.4	70.6	1440	20.2	145.4	3006	3	1.0	17.1	89	87	70
"	"	"	15-4-37	24		.	.	.	.	18	180	9500	5.93	19.73	23.9	53.2	1271	23.5	126.6	2740	4	1.3	19.0	90	87	68

* Diameter of ring frame front roller—1". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here. The performance of the 1934-35 sample is much below the average for this cotton.

8.—BROACH COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample. No.	Cotton.	Place.	Season.
729	Broach	Broach	1929-30.
1023	"	"	1930-31.
1351	"	Miyagam	1931-32.
1782	"	Dabhoi	1932-33.
2235	"	Palej	1933-34.
2731	"	Broach	1934-35.
3283	"	Palej	1935-36.
3542	"	Amod	1936-37.
3543	"	Palej	1936-37.

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	BROACH.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
								Amod.	Palej.
Colour	White to creamy-white.	White to creamy-white.	White to creamy-white; brightish.	Creamy-white; bright.	White to creamy-white; bright.	White to brightish.	White to creamy-white.	White.	White to creamy-white; bright.
Cleanliness ..	Clean; fairly bright.	Fairly clean; an occasional stain; very bright.	Fairly clean.	Clean.	Clean.	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained.	Clean.
Feel	Good.	Good-bodied.	Good-bodied.	Good.	Smooth and bodied.	Good.	Softish.	Good bodied.	Softish.
Ginning and Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	1.75% unginned.	..	1% unginned.	2.2% unginned.	..	..	..	..	..
Card sliver ..	Clean.	Clean.	Almost clean.	Clean.	Clean.	Almost clean.	Clean.	A little leafy.	Clean.
Card web ..	Clean.	Very good.	Good.	Even and nep-free.	Good.	Good.	Good.	Almost nep-free.	Good.
Weight of ten flat strips	15.6 grams.	13.7 grams.	16.2 grams.	15.4 grams.	16.9 grams.	21.9 grams.	18.8 grams.	13.4 grams.	14.0 grams.
Remarks .. ..	..	..	..	..	..	..	..	..	..

(b) Yarn :—

	BROACH.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
								Amod.	Palej.
Cleanliness ..	Clean.	Clean.	Clean.	Clean.	Fairly clean.	Almost clean.	A little leafy.	Fairly clean.	Slightly leafy
Evenness ..	Fairly even.	Fairly even.	Even.	Even.	Fairly even.	Even.	Fairly even.	Even.	Fairly even.
Neppiness ..	Fairly free of nep.	Somewhat neppy.	A trifle neppy.	Free of nep.	Almost free of nep.	A little neppy.	Almost free of nep.	Almost free of nep.	Fairly free of nep.
Slubbiness ..	..	A trifle slubby	..	..	..	A little slubby.	Slightly slubby.	..	..

3. Spinning Test Details and Results :—See Table 8 on page 24.

II. REPORT OF THE STANDARDS COMMITTEE FOR BROACH COTTON.

BROACH.										
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
									Amod.	Palej.
Contract valued under	..	F. G. M. G. Broach.	F. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2 April/May 1933.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1934.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1935 delivery.	F. G. M. G. Broach Hedge Contract No. 2 July/August 1936 delivery.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.
Class .. ..	..	Superfine.	Fine to Superfine.	Strict fine.	Fine to Superfine.	Superfine to Extra Superfine.	Fine.	Fine.	Fine.	Superfine.
Colour .. ..	..	Creamy.	White.	White.	White but slightly creamy.	White.	White.	Creamy-white.	White.	White.
Staple Length ..	..	13/16 inch.	3/4 inch.	5/8 inch.	3/4 inch.	3/4 inch.	1 1/16 inch to 3/4 inch	5/8 inch.	3/4 inch.	1 1/16 inch.
Staple Strength ..	..	Fair.	Fairly good.	Good.	Good.	Fair.	Fair.	Fair.	Moderate.	Moderate.
Regularity .. ..	..	Fair.	Regular.	Regular.	Regular.	Regular.	Fair.	Regular.	Regular.	Regular.
Value above or below contract rate.	..	Rs. 10 on.	Rs. 8 on.	Rs. 2 on.	Rs. 8 on	Rs. 12 on	Rs. 7 on.	Rs. 3 on.	Rs. 3 on.	Rs. 3 on.
Basis .. ..	..	Rs. 252.	Rs. 201.	Rs. 104.	F. G. M. G. Broach No. 2 April/May 1933 delivery Rs. 202.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1934 delivery Rs. 197.	F. G. M. G. Broach Hedge Contract No. 2 April/May 1936 delivery Rs. 237.	F. G. M. G. Broach Hedge Contract No. 2 July/August 1936 delivery Rs. 223.	F. G. M. G. Broach H. C. No. 2 April/May delivery Rs. 246.	F. G. M. G. Broach H. C. No. 2 April/May delivery Rs. 246.
Date of Valuation ..	..	20-4-30.	1-4-31.	30-5-32.	24-5-33.	9-4-34.	15-4-35.	24-6-36.	16-3-37.	10-3-37.
Remarks .. ..	..	..	..	..	..	..	..	..	..	..

Table 8.—SPINNING TEST RESULTS FOR BROACH COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						Imper-Ature, (°F.)	Relative Humidity, (%)					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front Roller Spd. R. P. M.	Spindle Spd. R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)			Count-Work Product.	Evenness Class.	Keps per yard.	Turns per inch.	
729	Broach ..	1929-30	13-5-30	16	10	6.6	8.6	0.6	15.0	57	192	..	5.20	15.97	15.7	55.5	871	15.8	117.8	1861	4	1.5	15.2	90	60	60
729	Broach ..	1929-30	12-5-30	20		..	..	..	..	20	148	..	6.54	20.23	20.0	50.8	1016	20.0	90.0	1800	5	2.0	19.1	92	60	61
1023	Broach ..	1930-31	15-4-31	16A	10	8.3	9.2	0.6	17.2	53	188	8400	5.23	15.97	15.9	57.9	921	15.9	122.4	1946	7	2.0	15.5	91	65	67
1028	Broach ..	1930-31	15-4-31	16B		..	..	..	..	27	192	9000	5.26	18.10	15.9	79.2	1250	15.5	143.2	2220	4	1.7	17.4	90	65	69
1023	Broach ..	1930-31	15-4-31	20		..	..	..	..	75	170	9450	6.68	20.23	20.5	50.0	1025	20.4	95.0	1950	5	2.2	10.5	89	65	67 .
1351	Broach ..	1931-32	6-6-32	12	10	6.0	8.9	0.6	15.6	68	206	7800	4.16	13.92	12.2	92.5	1128	12.3	211.6	2003	3	2.6	13.3	90	68	68
1351	Broach ..	1931-32	6-6-32	16		..	..	..	..	83	186	8000	5.32	15.07	16.0	57.9	926	10.2	120.8	2054	4	2.0	15.3	90	65	66
1782	Broach ..	1932-33	29-5-33	12	10	7.5	9.9	0.4	16.0	51	208	7800	5.00	13.92	12.7	96.5	1229	12.6	207.6	2010	7	1.0	13.1	90	66	68
1782	Broach ..	1932-33	29-5-33	16		..	..	..	..	42	177	7800	5.31	15.97	15.9	71.9	1143	10.4	155.6	2552	4	1.5	15.3	90	67	70
2235	Broach ..	1933-34	10-4-34	12	10	6.2	10.0	0.5	16.0	7	208	7800	4.00	13.92	12.3	99.4	1223	12.2	216.0	2035	3	1.0	13.3	89	69	66
2235	Broach ..	1933-34	17-4-34	16		..	..	..	..	91	180	7350	5.21	15.97	10.3	66.3	1081	16.1	137.2	2209	4	1.0	15.1	88	70	68 .
2731	Broach ..	1934-35	5-6-35	12	10	6.6	11.3	0.3	17.4	29	188	7200	5.13	13.92	12.1	99.0	1198	12.2	207.3	2328	3	1.8	13.1	88	65	65 .
2731	Broach ..	1934-35	4-6-35	16A		..	..	..	..	24	174	7600	5.76	15.97	10.2	57.1	930	10.0	156.4	2507	3	1.0	15.4	89	67	65
2731	Broach ..	1934-35	4-6-35	16B		..	..	..	..	24	184	9000	5.80	17.08	16.9	69.0	1106	10.5	158.8	2620	7	1.2	17.1	89	67	68
3263	Broach ..	1935-36	6-7-36	12	10	7.2	10.2	0.5	17.0	58	194	7450	5.64	13.92	12.0	78.8	946	12.1	191.2	2314	4	1.2	13.5	87	71	70
3263	Broach ..	1935-36	6-7-36	16A		..	..	..	..	91	180	8000	6.07	15.97	15.8	53.1	839	16.0	130.0	2037	4	0.8	15.4	87	74	72
3263	Broach ..	1935-36	4-7-36	16B		..	..	..	..	42	192	9300	5.78	17.08	16.1	72.5	1107	16.2	133.6	2164	5	1.0	17.3	85	77	69
3542	Broach	1936-37	25-3-37	12	10	6.3	8.5	0.3	11.5	15	200	7800	5.20	13.92	11.0	116.8	1190	12.1	231.0	2795	3	0.8	13.1	85	69	68
3542	(Amod)	1936-37	23-3-37	14		..	..	..	..	7	208	8600	5.21	14.08	13.0	92.5	1289	14.3	180.0	2703	3	0.8	14.4	85	65	66
3543		1936-37	23-3-37	16		..	..	..	..	12	196	8650	5.98	15.97	16.2	72.0	1166	16.0	147.8	2365	4	1.0	15.4	80	68	68
3543	Broach	1936-37	25-3-37	12	10	6.0	9.0	0.5	14.5	44	200	7700	5.29	13.92	12.1	83.1	1006	12.4	205.4	2547	3	1.0	13.5	85	69	67
3543	(Pale)	1936-37	23-3-37	14		..	..	..	..	29	204	8450	5.21	14.08	13.8	88.4	944	13.8	173.8	2398	4	1.5	14.7	85	68	68
3543		1936-37	27-3-37	16		..	..	..	..	19	196	8650	5.81	15.97	15.1	57.6	897	16.1	130.8	2106	5	1.5	15.4	86	67	68

* Diameter of ring frame front roller—7". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for a bulk sample spun under mill conditions it would be less than shown here.

9.—JAGADIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after selection and approval by their Standards Committee, in accordance with an arrangement made by the Association to supply to the Technological Laboratory, for testing, samples of fair average of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
730	Jagadia.	Jagadia.	1929-30.	2296	Jagadia.	Jagadia.	1933-34.
1047	"	"	1930-31.	2733	"	"	1934-35.
1355	"	"	1931-32.	3262	"	"	1935-36.
1786	"	"	1932-33.	3544	"	"	1936-37.

I. SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) Cotton :—

JAGADIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White; brightish.	White to creamy-white; bright.	White; brightish.	White to creamy-white; brightish.	White to creamy-white.
.. ..	Fairly clean.	Fairly clean.	Somewhat leafy.	Fairly clean.	Fairly clean.	A little stained; fairly clean.	Fairly leafy.	Contains leaf.
.. ..	Bodied and silky.	Good silky.	Good soft.	Good softish.	Good soft.	Good.	Good smooth.	Soft.
neppiness.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
.. ..	Occasional cut seed.	..	1.5% unginned.	..	..	..	..	..
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.
.. ..	Clear and even.	Good.	Good.	Even and nep-free.	Full and free of nep.	Web good.	Even; nep-free.	Slightly nepp.
n flat strips.	12.2 grams.	10.5 grams.	13.2 grams.	14.9 grams.	15.9 grams.	16.3 grams.	16.5 grams.	14.8 grams.
.. ..	A very good commercial sample.	..	..	..	..	..	..	..

(b) Yarn :—

JAGADIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Fairly clean.	A little leafy.	Almost clean.
.. ..	Fairly even.	Even.	Even.	Fairly even.	Even.	Even.	Even.	Fairly even.
.. ..	Fairly free of nep.	Fairly free of nep.	Almost free of nep.	Almost nep-free.	Almost free of nep.	Fairly free of nep.	Practically free of nep.	Fairly nepp.
..

3. *Spinning Test Details and Results* :—See Table 9 on page 27.

II. REPORT OF THE STANDARDS COMMITTEE FOR JAGADIA COTTON.

JAGADI A.										
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..		
	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.		
Class ..	Strict fine ..	Fine ..	Fine ..	Fine ..	Fine to superfine ..	Barely fine ..	Fine.	Fine.		
Colour ..	Good ..	Dullish white ..	White ..	White ..	White ..	Creamy white ..	Whitish.	White.		
Staple Length ..	One inch ..	29/32 inch ..	7/8 inch ..	29/32 inch ..	15/16 inch ..	7/8" to 15/16"	15/16 inch.	29/32"		
Staple Strength ..	Fair ..	Fair ..	Fair ..	Good ..	Good ..	Fair ..	Good.	Good.		
Regularity ..	Good ..	Regular ..	Regular ..	Regular ..	Regular ..	Fair ..	Regular.	Regular		
Value above or below contract rate.	Rs. 90 on ..	Rs. 85 on ..	Rs. 45 on ..	Rs. 45 on ..	Rs. 70 on ..	Rs. 85 on ..	Rs. 35 on.	Rs. 52 on.		
Basis ..	Rs. 252 ..	Rs. 182 ..	Rs. 164 ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..		
				No. 2, April/May 1933 delivery, Rs. 202.	No. 2, April/May 1934 delivery, Rs. 187.	No. 2, April/May 1935 delivery, Rs. 237.	No. 2, July/August 1936 delivery, Rs. 223.	No. 2, Apr./May delivery, Rs. 246.		
Date of valuation ..	29-4-30 ..	5-5-31 ..	30-5-32 ..	24-5-33 ..	3-5-34 ..	15-4-35 ..	24-6-36.	16-3-37.		
Remarks ..	..	..	..	..	..	..	..	..

Table 9.—SPINNING TEST RESULTS FOR JAGADIA COTTON.

Sample No.	Cotton.	Sec. used.	Date of spinning	Counts nominal	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING TRAMM PARTICULARS *						YARN TEST RESULTS.						RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	LFA			BALLISTIC.			Reps per yard.		Turns per inch Actual.	Spinning Room.	Testing Room.
															Counts Actual	Strength (lbs.)	Count strength Product	Counts Actual	Work of Ring (inch lbs)	Count Work Product.					
730	Jagadia .	1029-30	12-5-30	24	10	8.3	7.8	0.7	16.1	8	173	.	7.35	10.73	21.0	61.4	1474	23.9	88.4	2113	2.7	19.0	90	65	62
730	Jagadia .	1029-30	12-5-30	30		..	..	.	..	63	158	..	0.64	21.86	30.5	38.0	1160	30.5	55.2	1684	2.2	21.1	91	62	61
1017	Jagadia .	1030-31	11-5-31	20	10	8.3	8.0	0.5	16.0	31	106	9800	6.11	17.08	19.9	77.1	1510	20.5	113.2	2321	1.7	17.4	90	63	67
1017	Jagadia .	1030-31	12-5-31	24		..	..	..	..	0	178	9800	6.50	10.73	24.1	61.0	1170	21.1	07.2	2372	1.5	10.1	90	65	67
1017	Jagadia .	1030-31	12-5-31	30		..	..	.	.	23	150	9800	7.88	23.11	20.8	45.4	1373	30.3	79.4	2100	2.0	22.2	89	66	60
1335	Jagadia .	1031-32	0-6-32	20	10	8.0	7.5	0.6	15.3	50	104	9500	6.95	17.08	20.0	70.6	1502	20.2	126.4	2553	1.2	17.1	91	67	60
1335	Jagadia .	1031-32	0-6-32	24		.	.	..	..	21	177	9550	7.11	10.73	24.1	59.3	1429	21.1	101.6	2440	1.2	10.0	92	66	60
1335	Jagadia .	1031-32	8-6-32	30		.	.	..	..	40	160	9600	7.00	21.86	20.2	47.1	1375	20.8	81.6	2521	1.8	21.1	91	66	69
1786	Jagadia .	1032-33	1-6-33	24	0	8.0	8.8	0.5	16.5	41	180	9650	5.54	10.73	23.9	63.2	1510	21.7	108.8	2579	1.2	19.1	89	68	70
1786	Jagadia .	1032-33	1-6-33	30		..	..	..	..	122	178	9400	6.71	21.86	27.8	46.1	1383	30.3	62.1	2497	2.0	21.3	91	68	70
2206	Jagadia .	1033-34	22-5-34	20	10	0.6	8.5	0.3	11.8	16	108	9760	5.87	17.08	20.2	88.8	1791	20.6	128.8	2053	1.8	17.3	90	68	60
2206	Jagadia .	1033-34	22-5-34	24		.	..	..	..	0	180	9300	5.45	10.73	23.9	72.6	1735	21.2	111.8	2707	1.8	10.1	90	68	68
2206	Jagadia .	1033-34	23-5-34	30		.	..	.	..	20	159	9360	6.71	21.86	20.5	53.6	1581	27.9	88.1	2613	1.7	21.2	88	68	70
2732	Jagadia .	1034-35	5-6-35	20	10	7.5	8.3	0.4	15.6	10	192	9200	6.95	17.08	20.5	75.5	1518	20.5	129.6	2795	1.8	17.1	88	66	60
2732	Jagadia .	1034-35	6-6-35	24		..	..	..	..	36	176	9500	5.33	10.73	21.0	64.0	1530	21.3	108.2	2620	1.5	10.0	90	67	60
2732	Jagadia .	1034-35	6-6-35	30		..	..	.	..	17	142	8300	6.67	21.86	27.1	48.9	1423	20.7	89.4	2655	2.0	21.3	89	68	69
3262	Jagadia .	1035-36	3-7-36	20	10	7.5	8.8	0.3	15.0	5	100	9550	5.95	17.08	20.1	88.1	1771	20.2	128.6	2708	1.0	17.2	86	77	68
3262	Jagadia .	1035-36	3-7-36	24		.	.	..	..	9	171	9600	5.55	10.73	23.7	70.0	1673	23.9	106.1	2543	1.5	18.8	87	76	68
3262	Jagadia .	1035-36	4-7-36	30		.	.	.	.	20	152	9550	6.91	21.86	20.7	49.7	1470	30.2	83.0	2507	1.0	20.8	87	75	70
3544	Jagadia .	1036-37	25-3-37	20	10	7.2	8.3	0.3	15.2	5	185	9400	6.22	17.08	20.1	83.8	1725	20.3	133.2	2704	2.5	17.3	86	76	67
3544	Jagadia .	1036-37	30-3-37	24		.	.	..	..	18	166	9450	5.20	10.73	23.1	73.0	1686	21.1	110.0	2651	3.2	10.1	86	67	67
3544	Jagadia .	1036-37	31-3-37	30		.	.	.	.	3	153	9100	6.83	21.86	20.6	51.6	1527	28.0	86.6	2703	3.5	21.1	85	67	67

* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".
† It is to be noted that the total loss is for a small sample weighing 10 lbs or thereabout for a bulk sample spun under mill conditions it would be less than shown here

10.—SURAT COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after on and approval by their Standards Committee, in accordance with an arrangement made by the Association to supply to the Technological Laboratory, for testing, samples of fair average of the commercial crop.

Sample No.	Cotton.	Place.	Season.
731	Surat.	Surat.	1929-30.
1022	Surat.	Surat.	1930-31.
1353	Surat.	Kosamba.	1931-32.
1783	Surat.	Surat.	1932-33.
2236	Surat.	Surat.	1933-34.
2837	Surat.	Surat.	1934-35.
3163	Surat.	Surat.	1935-36.
3545	Surat.	Ankleshwar.	1936-37.

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

SURAT.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	White; bright.	White to creamy-white.	White; brightish.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White; bright.
.. ..	Fairly clean; a trifle stained.	Fairly clean; very bright.	Somewhat leafy.	Fairly clean.	Clean.	Fairly leafy.	Clean.	Contains a little leaf a trifle stained.
.. ..	Good silky.	Very soft.	Soft silky.	Good smooth.	Good soft.	Good.	Smooth and bodied.	Soft.
pininess ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.
.. ..	..	..	..	..	1% unginned.	Good amount of unginned seeds.	..	..
.. ..	Clean.	Clean.	Almost clean.	Almost clean.	Clean.	A little leafy.	Clean.	Almost clean.
.. ..	Even and clear.	Very good.	Fairly good.	Even and nep-free.	Good.	Full.	Even and nep-free.	A little neppy.
strips ..	13.7 grams.	11.0 grams.	14.3 grams.	15.1 grams.	14.7 grams.	18.1 grams.	12.3 grams.	13.4 grams.
.. ..	A very desirable cotton.	..	..	..	..	..	..	..

(b) *Yarn* :—

SURAT.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Clean.	Fairly clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Almost clean.
.. ..	Fairly even.	Even.	Even.	Fairly even.	Fairly even.	Even.	Even.	Even.
.. ..	A little neppy.	Practically free of nep.	Almost free of nep.	Free of nep.	Fairly free of nep.	A little neppy.	Free of nep.	Slightly neppy.
.. ..	..	..	..	..	..	Occasionally slubby.	..	..

Spinning Test Details and Results :—See Table 10 on page 30.

Table 10—SPINNING TEST RESULTS FOR SURAT COTTON.

Table 10—SPINNING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1	2	3	4	5	6	7	8	9	10	11	RING FRAME PARTICULARS.*				WASTE PERCENTAGES.				16	17	18	YARN TEST RESULTS.				25	26	27																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample, lbs.	Blow Room Loss.				Card Room Loss.				Spinning Loss.				Total Loss, †	Yarn Breakages per 100 spindles	Front Roller speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per Inch.	LEA.		BALISTICO.		Tensile Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.	Keps per yard.	Turns per Inch Actual.	TEMPERATURE (°F.).		RELATIVE HUMIDITY %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
						Blow Room	Card Room	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning							Spinning	Spinning	Spinning	Spinning								Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning	Spinning

* Diameter of ring frame front roller— $\frac{1}{8}$ ". Diameter of rings— $\frac{1}{16}$ ".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

11.—NAVSARI COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
732	.. Navsari.	Navsari.	1929-30.	2435	.. Navsari.	Navsari.	1933-34.
1048	.. "	"	1930-31.	2828	.. "	"	1934-35.
1354	.. "	"	1931-32.	3162	.. "	"	1935-36.
1784	.. "	"	1932-33.	3565	.. "	Mahuvar.	1936-37.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NAVSARI.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White; very bright.	White to creamy-white; bright.	White; bright.	White to creamy-white; bright.	White; bright.	White; bright.	White bright.	White.
Cleanliness ..	A trifle leafy.	Clean to fairly clean.	Fairly clean.	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean, trifle stain.
Feel	Soft and silky.	Silky and bodied.	Very good.	Silky and bodied.	Smooth bodied.	Good.	Smooth and bodied.	Good.
Ginning and Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	1.25% unginned.	..	..	..	..	..	..	..
Card Sliver ..	Clean.	Clean.	Clean.	Clean.	Clean.	Soft; clean.	Clean.	Almost
Card Web	Clear and even.	Very good.	Good.	Even and nep-free.	Full.	Full.	Even and nep-free.	Good.
Weight of ten flat strips	13.3 grams.	8.1 grams; very light.	13.5 grams.	13.5 grams.	20.7 grams.	19.0 grams.	13.3 grams.	12.5 grams
Remarks .. ..	..	A very desirable cotton.	..	..	..	..	..	..

(b) Yarn :—

	NAVSARI.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Clean.	Clean.	Clean.	Clean.	A little leafy.	Clean.	Clean.	Almost
Evenness	Somewhat uneven.	Even.	Even.	Fairly even.	Fairly even.	Even.	Very even.	Fairly
Noppiness	Neppy.	Fairly free of nep.	Almost free of nep.	Free of nep.	Fairly free of nep.	A trifle neppy.	Nep-free.	Almost
Stubbliness ..	..	..	..	..	..	..	..	of nep.

3. *Spinning Test Details and Results* :—See Table 11 on page 33.

II--REPORT OF THE STANDARDS COMMITTEE FOR NAVSARI COTTON.

[illegible]

Table 11.—SPINNING TEST RESULTS FOR NAVSARI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	YARN TEST RESULTS.						19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						BALASTIC.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 Spindles per hour.	Front Roller Speed R.P.M.	Spindles Speed R.P.M.	Draft.	Turns per Inch.	I.R.A.			BALASTIC.														
															Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count-work Product.												
732	Navsari ..	1929-30	13-5-30	24	10	7.0	8.0	0.7	16.1	68	172	..	8.50	19.73	24.3	55.4	1346	24.3	80.4	1054	4	4.2	18.8	80	60	60	60	60	60	60		
732	Navsari ..	1929-30	14-5-30	300		..	..	..	..	47	165	..	8.97	24.52	30.5	42.0	1281	31.3	58.4	1828	6	4.5	23.5	89	61					
1048	Navsari ..	1930-31	11-5-31	20	8½	6.6	7.2	0.4	13.7	6	196	9800	6.41	17.98	20.1	72.5	1457	20.2	117.2	2367	3	1.2	17.3	90	63	67						
1048	Navsari ..	1930-31	12-5-31	24		..	..	..	..	9	178	9800	6.38	19.73	24.0	54.0	1396	24.1	98.2	2367	4	1.5	19.1	90	65	69				
1048	Navsari ..	1930-31	12-5-31	30B		..	..	..	..	37	156	9800	7.05	23.11	29.1	44.7	1301	29.7	81.0	2406	6	2.0	22.4	89	66	69				
1354	Navsari ..	1931-32	7-6-32	20	10	5.5	7.7	0.4	13.1	0	195	9650	6.08	17.08	10.8	78.8	1500	19.8	135.0	2086	3	1.8	17.4	90	67	69						
1354	Navsari ..	1931-32	7-6-32	24		..	..	..	..	32	178	9550	7.00	19.73	24.2	57.7	1306	24.0	99.4	2446	4	2.0	19.2	91	65	68				
1354	Navsari ..	1931-32	8-6-32	30A		..	..	..	..	40	159	9500	6.04	21.86	28.4	48.0	1363	28.2	87.0	2453	5	2.0	21.4	91	67	68				
1764	Navsari ..	1932-33	30-5-33	24	9	6.2	8.0	0.4	14.1	73	178	9650	5.88	19.73	24.0	82.5	1500	23.7	104.4	2474	4	1.0	19.0	91	68	67						
1764	Navsari ..	1932-33	31-5-33	30A		..	..	..	..	60	154	9050	7.00	21.86	30.0	44.2	1326	29.7	84.2	2501	4	1.0	20.9	91	66	72				
2435	Navsari ..	1933-34	9-8-34	20	10	5.6	10.4	0.3	15.6	0	197	9550	6.59	17.98	20.6	85.6	1763	20.3	131.4	2067	3	2.8	17.2	84	80	82						
2435	Navsari ..	1933-34	9-8-34	30A		..	..	..	..	10	162	9500	6.58	21.86	30.0	49.1	1473	29.4	98.2	2593	5	2.5	21.0	84	80	81				
2435	Navsari ..	1933-34	9-8-34	34		..	..	..	..	36	148	9050	7.42	23.26	33.4	40.4	1349	33.1	78.8	3008	6	2.5	22.4	84	80	81				
2828	Navsari ..	1934-35	26-8-35	20	10	5.9	10.0	0.5	15.9	16	196	9500	5.95	17.98	20.7	86.5	1791	20.7	134.8	2790	3	2.5	17.0	86	69	72						
2828	Navsari ..	1934-35	24-8-35	24		..	..	..	..	5	178	9700	5.29	19.73	23.6	76.2	1708	23.8	116.6	2775	3	2.0	19.0	85	72	72				
2828	Navsari ..	1934-35	24-8-35	30A		..	..	..	..	30	157	9500	6.71	21.86	31.2	48.5	1513	31.5	85.4	2000	4	2.0	20.7	86	71	70				
3162	Navsari ..	1935-36	30-4-36	20	10	3.3	7.1	0.3	10.4	5	195	9600	5.85	17.98	20.0	85.8	1716	19.9	125.2	2491	3	0.5	17.2	80	69	70						
3162	Navsari ..	1935-36	30-4-36	24		..	..	..	..	27	178	9700	5.43	19.73	24.3	63.5	1543	24.1	104.6	2521	3	0.8	19.1	80	71	71				
3162	Navsari ..	1935-36	1-5-36	30A		..	..	..	..	26	150	8900	6.41	21.86	29.5	49.3	1454	29.6	85.8	2540	4	0.5	21.0	89	68	72				
3565	Navsari ..	1936-37	13-4-37	20	10	5.5	8.9	0.4	14.2	10	210	10200	5.95	17.98	20.0	91.7	1834	19.8	135.4	2861	4	1.0	17.0	88	68	68						
3565	Navsari ..	1936-37	13-4-37	24		..	..	..	..	27	178	9500	5.44	19.73	24.0	68.8	1643	23.9	110.0	2629	4	1.0	18.8	89	68	67				
3565	Navsari ..	1936-37	14-4-37	30A		..	..	..	..	23	160	9500	6.02	21.86	29.8	53.6	1597	29.7	89.2	2560	5	0.8	20.9	89	68	68				

* Diameter of ring frame front roller—1½". Diameter of ring 14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

12.—DHOLLERAS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
724	Dholleras (Fine) Vagadia	Wadhwan	1929-30.
725	Dholleras (Superfine) Vagadia	"	1929-30.
1126	Dhollera Vagadia	"	1930-31.
1368	" "	Limbdi	1931-32.
1886	" "	Kadi	1932-33.
2357	" "	Wadhwan	1933-34.
2830	" "	Manavadar	1934-35.
3231	" "	Bawla	1935-36.
3697	" "	Dhandhuka	1936-37.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton*. :—

DHOLLERAS.									
Season.	1929-30. (Fine)	1929-30. (Superfine)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white.	Dullish white.	Creamy-white.	Dullish white.	White to creamy white; brightish.	White to creamy white; fairly bright.	Dullish creamy-white.	White to creamy-white; bright.	White to creamy-white.
Cleanliness	Very leafy (sandlike leaf); a good deal stained.	Leafy; slightly stained.	Leafy; occasional spot of stain.	Leafy.	Somewhat leafy.	Very leafy with occasional stains.	Stained; leafy.	Fairly leafy.	Very leafy.
Feel .. ..	.. ..	Better feel than Fine Dholleras	Somewhat soft.	Good.	Good.	Good.	Fairly Good.	Good bodied.	Fairly Good.
Ginning and neppiness	Fairly well-ginned.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned.	..	Well-ginned.	Somewhat knotted.	Well-ginned.	Well-ginned.
Seeds	Occasional cut; a fair amount of unripe fibre and 2 per cent. seeds—mostly un-ginned.	..	1.5% un-ginned.	2.1% and un-ginned.	2% partly ginned.	3.75% un-ginned (kapsas).	..	..	..
Card Silver	Clear.	Clear.	A little leafy.	Almost clean.	Clean.	Fairly clean.	Almost clean.	Almost clean.	Good; a little leafy.
Card Web	Clear.	Clear.	Even and practically neppy.	Good.	Even and neppy.	Good.	Good.	Good.	Good; a little neppy.
Weight of 10 flatstrips	16.6 grams.	..	21.2 grams.	13.5 grams.	18.0 grams.	20.2 grams.	24.6 grams.	15.4 grams.	23.5 grams.
Remarks	A poor, wasty sample.	Staple fine for its length but irregular in length and strength.	Fully Pressed.	Fully pressed.	..	..	..	..	..

(b) *Yarn*. :—

DHOLLERAS.									
Season.	1929-30. (Fine.)	1929-30. (Superfine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Fairly clean	Clean	Fairly clean	Clean	Clean	Clean	Fairly clean	Almost clean	Fairly clean.
Evenness	Fairly even	Somewhat uneven.	Fairly even	Even	Even	Even	Even	Even	Even.
Neppiness	A little neppy.	A little neppy.	Fairly neppy.	Free of nepp.	Free of nepp.	Slightly neppy.	Almost free of nepp.	Practically free of nepp.	Fairly free of nepp.
Stubbiness	Slubby	Slubby	..	..	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 12 on page 36.

II.—REPORT OF THE STANDARDS COMMITTEE FOR DHOLLERAS COTTON.

DHOLLERAS.										
		1920-30 (Fine.)	1920-30 (Superfine.)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	..	F. G. M. G. Branch	F. G. M. G. Branch	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/August 1933 delivery.	F. G. M. G. Branch H. C. No. 2, July/ August 1934.	F. G. M. G. Branch H. C. No. 2, July/ August 1935 deli- very.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. delivery.
Class ..	..	.. Fine ..	.. Strict superfine ..	.. Fine ..	.. Fine to superfine ..	.. Superfine ..	.. Fully good to fine ..	.. About fine ..	.. Superfine.	.. Fine.
Colour ..	..	.. Silvery ..	.. Silvery ..	.. Bluish white ..	.. Bluish white ..	.. White ..	.. White ..	.. Creamy ..	.. White.	.. Whitish.
Staple Length ..	..	.. 5/8—7/8 inch ..	.. 7/8 inch ..	.. Barely 3/4 inch ..	.. 13/16 inch ..	.. 13/16 inch ..	.. 13/16 inch ..	.. 3/4 inch ..	.. 13/16 inch.	.. 9/16 inch.
Staple Strength ..	..	.. Poor ..	.. Fair ..	.. Weak ..	.. Good ..	.. Good ..	.. Good ..	.. Fair ..	.. Good.	.. Weak.
Regularity ..	..	.. Irregular ..	.. Fair ..	.. Irregular ..	.. Regular ..	.. Regular ..	.. Regular ..	.. Fair ..	.. Slightly irregular.	.. Irregular.
Value above or below contract rate.	..	.. Par ..	.. Rs. 7 on ..	.. Par ..	.. Rs. 7 on ..	.. Rs. 7 on ..	.. Rs. 5 on ..	.. Par ..	.. Rs. 5 on.	.. Rs. 12 off.
Basis ..	..	.. Rs. 255 ..	.. Rs. 255 ..	.. Rs. 177 ..	.. Rs. 152 ..	..	.. F. G. M. G. Branch H. C. No. 2, July/ August 1934 delivery Rs. 208.	.. F. G. M. G. Branch H. C. No. 2, July/ August 1935 delivery Rs. 224.	.. F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery Rs. 197.	.. F. G. M. G. Branch Hedge Contract No. 2, July/Aug. delivery. Rs. 225.
Date of Valuation ..	..	.. 29-4-30 ..	.. 29-4-30 ..	.. 14-7-31 ..	.. 13-6-32 ..	.. 26-7-33 ..	.. 10-6-34 ..	.. 13-8-35 ..	.. 5-5-36.	.. 28-6-37.
Remarks ..	..	.. This year poor char- acter.	.. This year poor char- acter.	..	..	..	..	..	..	.. Seedy.

Table 12.—SPINNING TEST RESULTS FOR DHOLLERAS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	RING FRAME PARTICULARS.*						WASTE PERCENTAGES.				YARN TEST RESULTS.				TEMPERATURE (°F.).	RELATIVE HUMIDITY (%)		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	Blow Room Loss.				Spinning Loss.				Total Loss.†				Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	L.S.A.			EVENNESS CLASS.			Neps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Counts Actual.	Strength (lbs.)	Count-Strain (lb.)	Count-Work Product.																			
724	Dholleras (Fine).	1929-30	7-5-30	20A	10	16.6	10.0	0.7	25.5	50	160	..	0.76	17.08	10.8	48.9	968	1719	66.8	17.1	4	3.0	90	04	64							
		1929-30	7-5-30	20B	10	..	..	..	..	10	172	..	0.76	20.23	10.5	57.3	1117	1840	94.2	10.1	5	3.5	90	05	64			
725	Dholleras (Superfine)	1929-30	7-5-30	20A	10	14.1	9.0	0.9	22.5	70	160	..	0.76	17.08	20.3	41.3	838	1697	83.2	17.2	5	2.5	90	05	64							
		1929-30	7-5-30	20B	10	..	..	..	..	45	172	..	0.76	20.23	20.0	53.5	1070	1737	87.0	10.3	5	3.7	90	05	63			
1126	Dholleras.	1930-31	24-7-31	16	9	14.2	11.8	0.6	24.9	40	198	8800	5.79	15.97	15.8	76.4	1297	2103	129.0	15.5	3	4.7	86	78	79							
1126	Dholleras.	1930-31	23-7-31	20A	..	..	..	..	..	110	179	8850	6.10	17.08	10.5	55.0	1072	2046	102.8	17.1	4	5.2	88	75	81		
1126	Dholleras.	1930-31	24-7-31	20B	..	..	..	..	..	70	187	10750	6.25	20.23	19.9	62.1	1236	2182	110.2	10.4	4	4.7	87	76	84		
1368	Dholleras.	1931-32	21-6-32	14	10	13.6	8.1	0.6	21.1	7	196	7750	5.00	14.08	13.6	85.0	1292	2390	170.0	14.4	3	0.8	89	09	70							
1368	Dholleras.	1931-32	21-6-32	16	..	..	..	..	..	30	190	8300	5.09	15.97	10.0	73.3	1173	2077	127.4	15.3	3	0.5	90	09	74		
1368	Dholleras.	1931-32	21-6-32	20A	..	..	..	..	..	52	174	8700	5.71	17.08	19.4	58.4	1133	2047	106.0	17.2	4	0.8	90	06	70		
1866	Dholleras.	1932-33	22-8-33	14	10	12.2	11.0	0.4	22.2	51	198	8250	5.21	14.08	14.0	84.4	1182	2608	189.0	14.6	3	0.5	88	06	69							
1866	Dholleras.	1932-33	23-8-33	16	..	..	..	..	..	55	184	8200	5.00	15.97	15.8	72.6	1147	2534	161.4	15.4	4	1.0	88	71	71		
2357	Dholleras.	1933-34	20-6-34	16	10	18.6	11.3	0.3	28.0	30	192	8250	5.11	15.97	16.1	70.4	1270	2519	158.4	15.5	3	1.5	86	78	80							
2357	Dholleras.	1933-34	28-6-34	20A	..	..	..	..	..	42	175	8550	5.88	17.08	19.0	60.2	1168	2397	114.8	17.3	4	1.8	86	80	83		
2357	Dholleras.	1933-34	28-6-34	20B	..	..	..	..	..	52	183	9800	5.80	19.26	20.0	62.3	1252	2263	110.4	18.5	4	2.0	85	80	80		
2830	Dholleras.	1934-35	28-8-35	12	10	13.8	13.3	0.6	25.0	7	198	7350	5.25	13.92	12.3	100.6	1297	2591	212.4	13.3	3	1.0	87	71	82							
2830	Dholleras.	1934-35	27-8-35	16	..	..	..	..	..	67	198	8650	5.33	15.97	15.1	76.6	1157	2430	158.8	15.1	3	0.8	87	71	81		
2830	Dholleras.	1934-35	27-8-35	20B	..	..	..	..	..	94	180	9550	5.71	19.26	20.2	51.7	1014	2119	105.4	18.5	4	1.0	87	70	72		
3231	Dholleras.	1935-36	16-6-36	12	10	8.9	8.2	0.2	16.5	7	194	7350	5.21	13.92	12.7	97.4	1297	2540	207.2	13.5	3	0.8	88	09	74							
3231	Dholleras.	1935-36	16-6-36	16	..	..	..	..	..	24	192	8550	5.33	15.97	15.7	75.1	1170	2592	162.0	15.4	4	1.0	89	08	76		
3697	Dholleras.	1936-37	12-7-37	12	10	15.8	15.1	0.3	29.7	15	207	7800	5.42	13.92	12.5	103.2	1290	2670	213.0	13.5	3	1.8	84	70	84							
3697	Dholleras.	1936-37	10-7-37	14	..	..	..	..	..	0	193	7800	5.24	14.08	11.0	86.4	1210	2628	186.4	14.5	3	1.5	85	78	80		
3697	Dholleras.	1936-37	10-7-37	16	..	..	..	..	..	0	194	8200	5.95	15.97	10.0	68.4	1094	2686	162.8	15.1	5	1.8	84	77	80		

* Diameter of ring frame front roller—7". Diameter of ring—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

13.—KALAGIN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
757	Kalagin	Manavadar	1929-30
1155	"	"	1930-31
1431	"	Porbunder	1931-32
1888	"	"	1932-33
2358	"	"	1933-34
2771	"	"	1934-35
3327	"	Manavadar	1935-36
3696	"	Porbunder	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine Crighton (twice), Hopper, Scutcher (3 times). 1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

KALAGIN.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	Dull creamy-white; fairly bright.	Creamy white.	White to creamy-white	Creamy white; brightish.	Creamy white; fairly bright.	Creamy white.	White to creamy-white; brightish.	White to creamy-white; brightish.
Cleanliness ..	Very leafy indeed.	Very leafy	Very leafy	Very leafy	Very leafy; noticeably stained.	Very leafy	Leafy.	Very leafy.
Feel ..	..	Good-bodied.	..	Good ..	Good soft ..	Good ..	Good smooth.	Good.
Ginning & Neps ..	Fairly well-ginned.	A trifle knotted.	A trifle knotted and nepped.	..	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.
Seeds ..	2.5% unginned.	3.5% ginned and unginned	Too many out seeds besides 3.75% mainly unginned.	2.1% partly ginned and unginned.	2.35% clean and unginned	Contains a good amount of partly ginned and full clean seeds.	..	A few seeds.
Card Sliver ..	A little leafy	A trifle leafy	Leafy	Leafy	Leafy	Leafy	Leafy.	Very leafy.
Card Web ..	..	Even and nep-free.	Fairly good	Good	Full	Full	Good.	Good; nep-free
Weight of 10 flat strips.	16.9 grams	20.5 grams	23.8 grams	22.4 grams	32.0 grams	36.0 grams	18.7 grams.	40.0 grams.
Remarks ..	Licker-in No. 1 all trash; a fair amount of leaf shed over beam and ring rails.	Fully pressed.	..	..	..	..	..	Very heavy strips; much waste the blow and card.

(b) Yarn :—

KALAGIN.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Fairly leafy	A little leafy	A little leafy	Leafy	Very leafy	Leafy	Leafy.	Leafy.
Evenness ..	Fairly even	Fairly even	Even	Fairly even	Somewhat uneven.	Even	Fairly even.	Fairly even.
Neppiness ..	Free of nep	Fairly free of nep.	Almost free of nep.	Free of nep	Slightly neppy.	..	A trifle neppy.	Fairly free nep.
Slubbiness ..	..	..	..	..	..	A little slubby.	..	..

3. Spinning Test Details and Results.—See Table 13 on page 39.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KALAGIN COTTON.

[illegible]

Table 13.—SPINNING TEST RESULTS FOR KALAGIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PATENTMILLS.*				YARN TEST RESULTS.								TEMPERATURE. (°F.)		RELATIVE HUMIDITY (%)		
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	Counts Actual.	Strength (lbs.)	Count-Strongth Product.	Counts Actual.	Work of Rupture (lch.-lb.)	Count-Work Product.	Evenness Class.	Keps per yard.	Turns per Inch Actual.	Spinning Room.	Spinning Room.	Teasting Room.
767	Kalagin	1929-30	14-8-30	18.3	10.5	0.6	27.3	10	106	..	1.00	17.08	19.7	73.8	1154	20.2	112.8	2279	3	1.6	17.2	90	68	70
767	Kalagin	1929-30	14-8-30	..	..	..	..	40	176	..	5.05	10.73	23.5	55.5	1321	21.1	80.2	1057	5	2.0	19.0	90	68	69
1155	Kalagin	1930-31	14-8-31	15.3	12.5	0.0	26.4	74	161	8100	5.83	17.08	20.3	51.0	1034	20.4	104.1	2130	1	1.7	17.2	85	78	80
1155	Kalagin	1930-31	14-8-31	..	..	..	..	125	100	10850	5.06	20.23	19.8	67.1	1320	19.7	114.0	2246	4	2.0	19.4	87	74	81
1431	Kalagin	1931-32	23-8-32	22.0	16.2	0.8	35.2	143	166	8300	5.43	17.08	20.2	53.7	1085	20.3	102.6	2083	3	1.2	17.2	90	70	71
1431	Kalagin	1931-32	23-8-32	..	..	..	..	211	190	10800	5.43	20.23	20.0	63.7	1274	19.7	100.0	2147	3	1.0	19.3	91	68	71
1898	Kalagin	1932-33	23-8-33	18.3	14.7	0.3	30.5	24	182	8150	5.43	15.07	16.1	76.8	1236	16.4	138.6	2273	4	1.0	15.2	88	70	70
1898	Kalagin	1932-33	23-8-33	..	..	..	..	88	100	8350	5.43	17.08	19.7	61.7	1215	19.9	109.8	2185	5	1.2	16.9	87	73	68
2358	Kalagin	1933-34	30-6-34	18.8	10.8	0.6	35.2	109	190	7700	5.11	14.06	14.0	79.2	1095	13.7	170.2	2332	1	1.8	14.1	86	79	80
2358	Kalagin	1933-34	20-6-34	..	..	..	..	130	180	7800	5.88	15.07	16.1	58.6	913	16.3	121.6	1982	5	1.8	15.1	80	80	82
2358	Kalagin	1933-34	20-6-34	..	..	..	..	145	160	8350	5.80	19.20	20.3	47.3	960	20.4	98.8	2016	5	2.0	18.1	85	80	80
2771	Kalagin	1934-35	10-7-35	15.6	10.8	0.2	32.5	22	216	8000	5.11	14.08	13.8	105.1	1460	13.7	201.2	2750	3	2.2	14.4	81	76	77
2771	Kalagin	1934-35	20-7-35	..	..	..	..	12	198	8950	5.95	15.07	16.3	81.9	1335	16.0	162.2	2595	3	2.5	15.6	83	77	73
2771	Kalagin	1934-35	18-7-35	..	..	..	..	21	182	8600	6.10	19.20	20.5	61.5	1261	20.5	114.8	2553	4	2.5	18.5	85	75	78
3227	Kalagin	1935-36	22-8-36	10.6	12.8	0.2	22.3	0	202	8350	5.31	14.08	14.3	102.7	1460	14.1	212.8	3000	1	1.5	14.5	85	77	69
3227	Kalagin	1935-36	22-8-36	..	..	..	..	6	194	8450	6.02	15.07	16.0	87.7	1403	16.0	174.6	2704	4	1.8	15.3	85	75	69
3227	Kalagin	1935-36	21-8-36	..	..	..	..	21	194	10100	6.07	19.20	20.0	72.8	1456	19.9	122.2	2432	4	2.0	19.4	86	75	70
3000	Kalagin	1936-37	20-7-37	17.8	24.1	0.4	37.8	7	207	7650	4.00	13.02	11.8	106.8	1260	..	..	..	4	1.5	13.5	80	80	81
3006	Kalagin	1936-37	0-7-37	..	..	..	..	15	192	7750	5.24	14.08	13.8	76.0	1040	15.2	161.8	2340	1	1.0	14.3	80	77	82
3006	Kalagin	1936-37	12-7-37	..	..	..	..	42	178	7000	5.33	16.07	16.1	56.0	911	16.3	133.8	2181	4	1.5	15.1	83	78	81
3006	Kalagin	1936-37	12-7-37	..	..	..	..	6	188	8000	5.33	16.07	16.0	71.8	1119	15.8	149.2	2342	4	1.5	16.1	84	79	80

* Diameter of ring frame front roller—1". Diameter of rings—11".

14.—KADI-VIRAMGAM COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
727	Kadi-Viramgam	Kadi ..	1929-30.
1161	"	" ..	1930-31.
1430	"	Jotana ..	1931-32.
1887	"	Kadi ..	1932-33.
2459	"	Viramgam.	1933-34.
3326	"	"	1935-36.
3588	"	Kadi ..	1936-37.

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

		KADI-VIRAMGAM.						
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Colour		Creamy to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white; brightish.	White to creamy-white.	White to creamy-white; brightish.	White to creamy-white.
Cleanliness		Leafy	Leafy; slightly stained.	Leafy	Very leafy ..	Slightly stained; leafy.	A little stained; leafy.	Leafy.
Feel .. ..		.. ..	Moderately good.	Good	Good	Good	Good	Fairly good.
Ginning and neppiness.		.. ..	Well-ginned ..	.. ..	Well-ginned ..	Well-ginned ..	A trifle knotted.	Well-ginned.
Seeds		Far too much cut seed.	1.25% seeds ..	Considerable number of cut besides 1.10% ginned and unginned.	1.2% unginned.	1.72% seeds ..	.. ..	.. ..
Card aliver		Clean	Fairly clean ..	Clean	Almost clean ..	A little leafy ..	A little leafy ..	A little leafy.
Card web		Clear	Even and nep-free.	Fairly good ..	Good	Good	Fairly good ..	Good.
Weight of 10 flat strips.		16.2 grams ..	17.8 grams ..	17.8 grams ..	22.6 grams ..	26.7 grams ..	17.7 grams ..	16.6 grams.
Remarks		Fairly well-watered at the time of pressing.	Fully-pressed.	.. ..	Well-watered.	.. ..	.. ..	.. ..

(b) *Yarn* :—

		KADI-VIRAMGAM.						
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Cleanliness		Clean	Fairly clean ..	Clean	A trifle leafy ..	Clean	Almost clean.	Fairly clean.
Evenness		Even	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even.	Even in the lower counts.
Neppiness		A little neppy.	Somewhat neppy.	Fairly nep-free.	Free of nep ..	Fairly neppy ..	Fairly free of nep.	Fairly free of nep.
Slubbiness		Slubby .. ..	.. ..	.. ..	Occasional slub.	.. ..	.. ..	.. ..

3. *Spinning Test Details and Results* :—See Table 14 on page 42.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KADI-VIRAMGAM.

KADI-VIRAMGAM.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Contract valued under	F. G. M. G. Broach ..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach Hedge Contract No. 2.	F. G. M. G. Broach Hedge Contract No. 2.	F. G. M. G. Broach H. O. No. 2. April/May 1937 delivery.
Class	Superfine ..	Strict fine ..	Fine ..	Fine to superfine ..	Fully good to fine ..	Fine to superfine ..	Fine.
Colour	Silvery ..	Creamy-white ..	White ..	Creamy-white ..	Dull-white ..	White ..	Dull-white.
Staple Length	7/8 inch ..	Barely 7/8 inch ..	Full 3/4 inch ..	5/8 inch ..	Full 3/4 inch ..	3/4 inch ..	11/16 inch.
Staple Strength	Fair ..	Fair ..	Fair ..	Fair ..	Fair ..	Moderate ..	Fair.
Regularity	Fair ..	Irregular ..	Irregular ..	Irregular ..	Fair ..	Fairly regular ..	Regular but soft.
Value above or below contract rate ..	Rs. 7 on ..	Rs. 8 on ..	Rs. 4 on ..	Rs. 3 off ..	Rs. 3 on ..	Rs. 2 on ..	Rs. 5 off.
Basis	Rs. 255 ..	Rs. 143 ..	Rs. 219 ..	F. G. M. G. Broach No. 2. July/August 1933 delivery, Rs. 207.	F. G. M. G. Broach H. O. No. 2. July/August 1934 delivery, Rs. 226.	F. G. M. G. Broach Hedge Contract No. 2. July/August 1936 delivery, Rs. 228.	F. G. M. G. Broach H. O. No. 2. April/May 1937 delivery, Rs. 233.
Date of Valuation	29-4-30 ..	25-8-31 ..	17-8-32 ..	26-7-33 ..	13-8-34 ..	8-8-36 ..	23-4-37.
Remarks	This year poor character.	..	..	..	..	..	..

Table 14.—SPINNING TEST RESULTS FOR KADI-VIRAMGAM COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.					TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).					
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	LEA.			BALISTIC.					Evenness Class.	Neps per yard.	Turns per inch Actual.	Spiraling Room.	Testing Room.
													Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	W or k of (inch-lb.).	Count-Work Product.							
727	Kadi-Virangam.	1929-30	8-8-30	12.7	9.8	0.7	21.8	35	163	..	0.25-	17.98	10.1	48.4	924	19.5	83.8	1634	4	5.2	17.2	64	64		
727	Kadi-Virangam.	1929-30	8-8-30	..	..	..	..	60	170	..	0.25	20.23	19.1	58.2	1112	19.3	90.2	1741	5	3.5	19.2	64	63
1161	Kadi-Virangam.	1930-31	1-9-31	14.1	10.2	0.6	22.3	40	184	8000	0.25	17.98	20.2	60.6	1224	20.1	105.1	2150	4	3.0	17.1	74	77		
1161	Kadi-Virangam.	1930-31	1-9-31	..	..	..	..	88	160	8500	6.79	19.73	23.6	46.2	1090	23.4	93.0	2176	4	3.5	18.8	72	81
1430	Kadi-Virangam.	1931-32	22-8-32	17.7	12.3	0.6	26.3	21	183	8000	5.98	17.98	19.5	66.2	1291	19.4	116.2	2251	4	1.5	17.2	70	71		
1430	Kadi-Virangam.	1931-32	22-8-32	..	..	..	..	47	154	8450	5.95	19.73	23.5	50.3	1182	23.8	93.2	2218	5	2.8	18.9	70	70
1887	Kadi-Virangam.	1932-33	23-8-33	11.9	13.1	0.6	24.1	224	170	7500	5.43	15.97	15.8	55.5	877	15.3	133.6	2011	4	0.8	15.1	75	69		
1887	Kadi-Virangam.	1932-33	22-8-33	..	..	..	..	218	168	8300	5.55	17.98	19.8	35.3	699	19.9	94.4	1870	1	1.0	17.3	67	69
2459	Kadi-Virangam.	1933-34	21-8-34	17.8	14.7	0.6	30.3	42	198	9600	5.93	17.98	20.4	63.4	1293	20.8	112.8	2316	3	4.5	17.1	77	76		
2459	Kadi-Virangam.	1933-34	22-8-34	..	..	..	..	36	179	9500	5.33	19.73	23.7	54.1	1282	24.1	96.0	2362	4	1.0	18.8	77	70
2459	Kadi-Virangam.	1933-34	22-8-34	..	..	..	..	122	135	9600	6.67	23.11	29.7	37.2	1103	29.8	76.8	2259	5	1.0	22.1	77	78
3326	Kadi-Virangam.	1935-36	21-8-36	10.3	12.2	0.4	21.6	22	202	8400	5.10	14.98	13.9	85.3	1186	11.1	170.2	2100	1	1.8	11.5	71	72		
3326	Kadi-Virangam.	1935-36	24-8-36	..	..	..	..	12	195	8400	5.81	15.97	16.4	61.6	1010	10.3	130.8	2132	1	2.0	15.1	71	70
3326	Kadi-Virangam.	1935-36	21-8-36	..	..	..	..	53	196	10100	5.81	10.26	20.2	59.0	1192	20.2	101.8	2117	5	1.5	18.6	75	76
3588	Kadi-Virangam.	1936-37	30-4-37	13.7	9.6	0.4	22.3	7	206	8500	5.33	14.98	14.3	82.9	1185	11.2	178.8	2539	3	1.2	11.3	67	68		
3588	Kadi-Virangam.	1936-37	30-4-37	..	..	..	..	36	191	8400	6.13	15.97	16.7	62.9	1050	16.5	132.0	2178	4	1.5	15.1	69	66
3588	Kadi-Virangam.	1936-37	29-4-37	..	..	..	..	16	195	10200	5.83	19.26	19.9	61.4	1222	19.6	109.2	2110	5	1.2	18.3	69	68

* The ring frame front-roller used in the spinning of these yarns has a diameter of $\frac{7}{8}$ inch. The diameter of rings— $1\frac{1}{8}$ inch. † It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

15.—WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after selection and approval by their Standards Committee, in accordance with an arrangement made by the Association to supply to the Technological Laboratory, for testing, samples of fair average quality of the commercial crop.

Sample No.	Cotton.	Place.	Season.
795	Westerns	Bellary	1929-30.
1127	Westerns	Adoni.	1930-31.
1370	Westerns	Adoni.	1931-32.
1889	Westerns	Raichur.	1932-33.
2356	Westerns	Adoni.	1933-34.
2838	Westerns	Raichur.	1934-35.
3398	Westerns	Adoni.	1935-36.
3635	Westerns	Adoni.	1936-37.

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. I possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

WESTERNS.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Creamy; fairly bright.	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	Dull creamy.	Creamy-white; dullish.	Creamy-white to white.
.. .. Very leafy.	Leafy; rather badly stained.	Leafy; slightly stained.	Much stained leafy.	Very leafy.	Badly stained leafy.	Leafy; slightly stained.	Leafy.	Fairly ..
.. .. Good.	Fairly good but softish.	Softish.	Poorish.	Good.	Good.	Good.	Good.	Well-ginned.
neppiness.. ..	Fairly well-ginned.	Well-ginned.	S o m e - w h a t knotted.	Well-ginned.	S o m e - w h a t knotted.	A trifle knotted.	..	..
.. .. 1.72% full clean.	..	0.7% ginned and unginned.	..	1% full clean.	..	..	..	..
.. ..	A trifle leafy.	A little leafy.	Almost clean.	Fairly leafy.	Fairly clean.	Almost clean.	Good; leafy.	Good; leafy.
.. ..	Very slightly neppy.	Good.	Good.	Good even.	A little neppy.	Even; neppy free.	Good; neppy.	Good; neppy.
flat strips..	21.2 grams.	17.6 grams.	14.3 grams.	18.4 grams.	23.7 grams.	22.5 grams.	14.7 grams.	17.8 grams.
.. .. Licker-in fly No. 1 all trash	..	..	..	..	..	..	..	..

(b) Yarn :—

WESTERNS.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Fairly clean.	Fairly clean.	Fairly clean.	Fairly clean.	Clean.	A little leafy.	Almost clean.	Almost clean.	A little leafy.
.. .. Fairly uneven.	Fairly even.	Fairly even.	Even.	Fairly even.	Fairly even.	Even.	Fairly even.	Even.
.. .. Very neppy.	Neppy.	A little neppy.	Fairly free of nepp.	S o m e - w h a t neppy.	Fairly free of nepp.	S o m e - w h a t neppy.	Almost clean.	Almost clean.
.. ..	..	..	..	Slubby.	Slightly slubby.	..	..	..

3. *Spinning Test Details and Results* :—See Table 15 on page 45.

II.—REPORT OF THE STANDARDS COMMITTEE FOR WESTERNS.

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WESTERNS.									
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	..	F.G.M.G. Broach.	F.G.M.G. Broach No. 2	F.G.M.G. Broach No. 2.	F.G.M.G. Broach No. 2, July/August 1933 delivery.	F.G.M.G. Broach H. C. No. 2, July/August 1934.	F.G.M.G. Broach Hedge Contract No. 2, July/August 1935 delivery.	F.G.M.G. Broach H. C. No. 2, April/May 1937 delivery.	F.G.M.G. Broach H. C. No. 2, April/May 1937 delivery.
Class	..	..	Superfine.	Superfine.	Good to Fully good.	Fully good.	Fine.	Fine.	Superfine.
Colour	..	..	Yellowish.	Brownish-dull white.	Brownish.	Brownish white.	Brownish.	Creamy brown.	Brownish white.
Staple Length	..	..	Full 3/4 inch.	3/4 inch.	5/8 inch.	3/4 inch.	13/16 inch.	11/16 inch.	13/16 inch.
Staple Strength	..	..	Fairly good.	Weak.	Fair.	Fair.	Moderate.	Poor.	Good.
Regularity	..	..	Irregular.	Irregular.	Irregular.	Irregular.	Fair.	Irregular.	Fairly regular.
Valued above or below Contract rate	..	Rs. 25 on.	Rs. 10 on.	Rs. 8 on.	Rs. 5 off.	Par.	Rs. 30 on.	Rs. 10 off.	Rs. 30 on.
Basis	..	..	Rs. 177.	Rs. 152.	F.G.M.G. Broach No. 2, July/August 1933 delivery, Rs. 207.	F.G.M.G. Broach H. C. No. 2, July/August 1934 delivery, Rs. 208.	F.G.M.G. Broach Hedge Contract No. 2, July/August 1935 delivery, Rs. 234.	F.G.M.G. Broach H. C. No. 2, April/May 1937 delivery, Rs. 219.	F.G.M.G. Broach H. C. No. 2, April/May 1937 delivery, Rs. 231.
Date of Valuation	..	10-7-30.	14-7-31.	13-6-32.	28-7-33.	19-6-34.	20-8-35.	5-10-36.	20-5-37.
Remarks	..	..	Probably mixed with Mungari.	..	..	..	..	..	..

Table 15.—SPINNING TEST RESULTS FOR WESTERNS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE. (°F.).	RELATIVE HUMIDITY. (%)			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front R.P.M.	Spindle speed R.P.M.	Draft.	Turns per Inch.	LEA.			BALISTICO.			Tensile Class.	Knots per yard.	Turns per Inch Actual.			Spinning Room.	Finishing Room.	Testing Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product	Counts Actual.	Work of Rapture (Inch-lb.).	Count-Strength Product.								
705	Westerns ..	1929-30	24-7-30	20A	10	13.9	11.0	0.7	21.7	68	170	..	5.32	17.95	19.0	10.1	96	20.0	94.2	1894	4	10.7	17.0	86	76	72		
706	Westerns ..	1929-30	24-7-30	20B	..	..	..	..	..	50	192	..	5.32	20.23	19.3	68.7	1297	19.3	107.8	2031	4	11.5	19.3	87	71	76
1127	Westerns ..	1930-31	24-7-31	20A	10	10.8	10.8	0.4	20.7	50	190	9150	6.12	17.94	20.1	66.6	1359	20.0	115.6	2312	4	9.0	16.9	83	75	82		
1127	Westerns ..	1930-31	25-7-31	24	..	..	..	..	..	40	190	8200	6.45	19.73	21.7	52.0	1332	21.3	92.0	2236	5	9.5	19.7	97	76	80
1370	Westerns ..	1931-32	23-6-32	20A	10	11.2	9.0	0.5	19.7	36	194	9500	5.57	17.93	19.4	77.7	1607	19.7	126.4	2100	3	2.5	17.3	86	69	78		
1370	Westerns ..	1931-32	23-6-32	24	..	..	..	..	..	8	175	9500	6.54	19.73	21.1	59.6	1331	21.2	101.2	2343	4	3.0	19.3	86	72	78
1880	Westerns ..	1932-33	1-9-33	16	10	15.0	10.8	0.4	21.5	73	181	8000	5.33	15.07	16.9	74.4	1183	16.1	132.0	2125	4	2.0	16.2	86	63	67		
1880	Westerns ..	1932-33	31-8-33	20A	..	..	..	..	..	151	178	8900	5.55	17.95	19.9	55.4	1162	20.3	103.0	2091	5	2.0	17.2	87	69	67
2356	Westerns ..	1933-34	20-6-34	16	10	14.1	13.0	0.5	25.6	42	192	8250	5.63	15.07	16.0	71.1	1141	15.8	133.0	2111	4	2.5	15.4	86	78	81		
2356	Westerns ..	1933-34	28-6-34	20A	..	..	..	..	..	109	175	8350	5.93	17.94	19.5	53.3	1095	19.9	102.6	2042	5	2.0	17.3	86	80	85
2356	Westerns ..	1933-34	28-6-34	20B	..	..	..	..	..	114	183	9400	5.94	17.94	20.0	69.2	1294	19.7	107.0	2103	4	2.5	18.4	85	80	80
2838	Westerns ..	1934-35	31-8-35	16	10	10.8	12.7	0.2	22.3	19	199	8900	5.80	15.07	15.9	107.2	1704	16.0	183.0	2023	3	1.8	15.4	85	75	74		
2838	Westerns ..	1934-35	30-8-35	20A	..	..	..	..	..	26	175	8550	5.93	17.93	20.1	75.2	1512	20.1	129.2	2397	3	2.2	17.0	86	75	74
2838	Westerns ..	1934-35	31-8-35	20B	..	..	..	..	..	10	185	9600	6.07	19.26	20.5	79.2	1054	20.6	127.6	2629	3	2.0	18.3	85	76	72
3308	Westerns ..	1935-36	14-10-36	10	10	12.5	10.5	0.2	21.8	0	194	8200	5.71	15.07	16.5	80.6	1330	16.5	136.2	2247	3	3.5	15.4	89	66	61		
3308	Westerns ..	1935-36	14-10-36	20A	..	..	..	..	..	5	181	9000	5.83	17.98	19.7	66.0	1300	19.9	111.4	2206	4	2.5	17.1	88	70	64
3308	Westerns ..	1935-36	14-10-36	20B	..	..	..	..	..	5	197	10350	5.93	19.26	20.3	72.2	1166	20.6	109.4	2250	4	2.5	18.7	87	69	63
3635	Westerns ..	1936-37	28-5-37	16	10	12.1	10.8	0.3	21.9	6	200	8700	6.34	16.07	15.6	96.2	1485	16.1	131.4	2189	3	1.2	15.3	90	67	66		
3635	Westerns ..	1936-37	29-5-37	20A	..	..	..	..	..	16	197	9500	6.03	17.98	20.7	59.3	1223	20.8	107.8	2242	4	1.2	17.3	90	68	66
3635	Westerns ..	1936-37	29-5-37	20B	..	..	..	..	..	10	198	10200	6.03	19.26	20.6	69.0	1421	20.9	111.0	2309	4	1.8	18.5	89	69	66

* Diameter of ring frame front roller—7/8". Diameter of rings—1-5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

16.—FARM WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
758	Farm Westerns	Guntakal	1929-30
1128	"	Adoni	1930-31
1371	"	Bellary	1931-32
1890	"	Adoni	1932-33
2297	"	Bellary	1933-34
2772	"	Adoni	1934-35
3323	"	Raichur	1935-36
3654	"	Guntakal	1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		FARM WESTERNS.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	.. ..	Creamy	Creamy-white.	Creamy-white	Creamy-white	White to creamy-white; fairly bright.	Creamy-white; fairly bright.	Creamy-white.	Creamy-white.
Cleanliness	.. ..	Very leafy	Leafy	Leafy; a good deal stained.	Stained; leafy	Leafy	Leafy	Leafy (fine leaf); stained.	Leafy.
Feel	.. ..	..	Good	Good softish	Good	Good	Good	Good.	Good.
Ginning and neppiness.	.. ..	Fairly well-ginned.	Well-ginned	Well-ginned	Somewhat knotted.	Well-ginned	Well-ginned	A little knotted.	..
Seeds	.. ..	1.56% ginned and unginned.	..	1.4% ginned and unginned.	..	2.2% unginned and full clean.	Contains too many full clean.	Few.	Ginned 0.86%
Card sliver	.. ..	Fairly clean	Slightly leafy.	A little leafy	Clean	Fairly clean	Leafy	Almost clean.	A little leafy.
Card web	.. ..	..	Even and almost nep-free.	Good	Good	Good even	Full	Good.	Good.
Weight of 10 flat strips.	.. ..	16.4 grams	18.7 grams	16.0 grams	18.5 grams	16.3 grams	25.1 grams	15.1 grams.	16.2 grams.
Remarks	.. ..	Much leaf shed over beam and ring rails.	Fully pressed	..	..	..	..	..	..

(b) Yarn :—

		FARM WESTERNS.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	.. ..	Fairly leafy	A little leafy	Fairly clean	Clean	Almost clean	Somewhat leafy.	Almost clean.	Leafy.
Evenness	.. ..	Even	Fairly uneven.	Even	Fairly even	Even	Fairly even	Even.	Even.
Neppiness	.. ..	A little neppy.	Noppy	A little neppy.	Almost free of nep.	Practically free of nep.	Somewhat neppy.	Slightly neppy.	Practically nep free.
Slubbiness	.. ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 16 on page 48.

II. REPORT OF THE STANDARDS COMMITTEE FOR FARM WESTERNS COTTON.

FARM WESTERNS.

II. REPORT OF THE STANDARDS COMMITTEE FOR FARM WESTERNS COTTON.

	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..
	No. 2.	No. 2.	No. 2.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.
Class	Extra superfine	Extra superfine	Superfine	Fully good to fine	Superfine	Superfine	Fully good to fine	Superfine.
Colour	White	Creamy-white	Brownish-white	Brownish	Whitish	Creamy-white	Dull white	White.
Staple Length	7 inch	Full 7 inch	7 inch	7 inch	7 inch	7 inch	7 inch	13/16 inch.
Staple Strength	Good	Strong	Good	Good	Good	Fairly good	Moderate	Fair.
Regularity	Regular	Regular	Regular	Regular	Regular	Regular	Slightly irregular	Regular.
Value above or below contract rate.	Rs. 45 on	Rs. 50 on	Rs. 30 on	Rs. 25 on	Rs. 40 on	Rs. 05 on	Rs. 15 off	Rs. 30 on.
Basis	Rs. 242	Rs. 177	Rs. 152	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..	F. G. M. G. Broach ..
				No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.	No. 2, July/Aug. 1933 delivery.
Date of valuation	6-6-30	14-7-31	13-6-32	20-7-33	3-5-34	2-7-35	8-8-30	3-6-37.
Remarks								

Table 16.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE FROM SPINNING ROOM (°F.).	RELATIVE HUMIDITY (%).	Testing Room.
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	L.W.A.			Counts Actual.	Work of Rupture (inch-lbs.)	Count-Work Product.	Evenness Class.	Neps per yard.	Turns per inch Actual.	Spinning Room.				
															Counts Actual.	Strength (lbs.)	Count-Strength Product.											
753	Farm Westerns.	1929-30	14-6-30	20	10	13.0	11.1	0.6	23.1	6	196	..	4.90	17.98	19.6	83.8	1642	19.7	121.8	2309	3	2.5	17.1	90	68	70		
763	Farm Westerns.	1929-30	14-6-30	24	..	..	..	..	..	44	176	..	5.95	19.73	23.5	61.8	1452	23.6	87.6	2067	4	3.0	19.0	90	68	64
1123	Farm Westerns.	1930-31	24-7-31	20	10	10.3	11.1	0.3	20.5	20	190	9450	5.36	17.98	20.6	64.0	1318	20.8	108.2	2261	4	5.5	17.3	88	75	80		
1123	Farm Westerns.	1930-31	25-7-31	24	..	..	..	..	..	27	160	8200	6.10	19.73	23.6	56.5	1333	23.9	98.4	2352	6	0.5	18.8	86	76	85
1371	Farm Westerns.	1931-32	23-6-32	20	10	12.3	8.7	0.5	20.4	16	194	9500	5.44	17.98	19.6	86.9	1703	20.0	139.2	2784	3	3.0	17.4	86	69	77		
1371	Farm Westerns.	1931-32	23-6-32	24	..	..	..	..	..	24	175	6500	6.41	19.73	23.6	70.7	1629	23.4	144.6	2682	4	3.0	19.3	86	72	81
1890	Farm Westerns.	1932-33	31-8-33	20	10	13.8	10.5	0.5	23.2	115	178	8800	5.98	17.98	19.8	60.6	1200	20.0	111.2	2224	4	1.5	17.2	87	69	70		
1890	Farm Westerns.	1932-33	31-8-33	24	..	..	..	..	..	186	162	8000	5.95	19.73	23.8	45.3	1078	24.0	92.0	2208	4	1.8	19.0	88	70	68
2297	Farm Westerns.	1933-34	22-5-34	20	10	12.2	9.3	0.3	20.6	10	198	9750	6.93	17.98	20.2	88.2	1660	20.1	131.2	2637	3	1.2	17.3	90	68	68		
2297	Farm Westerns.	1933-34	22-5-34	24	..	..	..	..	..	9	180	9300	5.33	19.73	23.5	68.8	1617	21.2	106.2	2570	4	1.5	19.1	90	68	70
2297	Farm Westerns.	1933-34	23-5-34	30	..	..	..	..	..	30	159	9500	6.02	21.86	20.1	49.3	1436	30.3	81.8	2569	5	1.5	21.1	88	68	70
2772	Farm Westerns.	1934-35	18-7-35	20	10	9.4	13.1	0.4	21.6	16	198	9750	6.10	17.98	19.9	86.0	1711	20.0	135.0	2700	3	2.2	17.0	86	72	78		
2772	Farm Westerns.	1934-35	19-7-35	24	..	..	..	..	..	27	180	9800	5.44	19.73	23.8	69.9	1664	23.4	113.6	2658	4	2.5	18.8	85	78	80
2772	Farm Westerns.	1934-35	19-7-35	30	..	..	..	..	..	53	129	9700	6.86	21.86	28.7	52.2	1498	28.5	89.6	2554	5	1.8	21.0	85	77	81
3323	Farm Westerns.	1935-36	20-8-36	16	10	11.6	9.7	0.3	20.4	18	192	8500	5.65	16.97	15.6	63.8	1463	16.1	155.2	2400	3	2.0	15.2	85	74	75		
3323	Farm Westerns.	1935-36	19-8-36	20A	..	..	..	..	..	21	180	9250	6.07	17.98	19.9	66.2	1317	20.4	112.0	2285	4	2.5	17.3	86	72	74
3323	Farm Westerns.	1935-36	19-8-36	20B	..	..	..	..	..	5	196	10600	6.10	19.26	20.0	73.9	1478	20.2	113.6	2295	4	1.2	18.7	86	71	74
3654	Farm Westerns.	1936-37	11-6-37	16	10	12.5	10.0	0.3	21.5	6	198	8700	5.50	15.97	15.6	112.1	1761	15.4	189.2	2614	3	0.8	15.5	90	70	69		
3654	Farm Westerns.	1936-37	12-6-37	20	..	..	..	..	..	10	192	9600	4.71	17.98	19.3	88.5	1708	19.0	138.0	2622	3	0.5	17.5	91	65	72
3654	Farm Westerns.	1936-37	12-6-37	24	..	..	..	..	..	14	178	9600	5.93	19.73	23.4	65.2	1526	23.1	106.8	2467	4	0.8	19.2	90	66	74

* Diameter of ring frame front roller—7/8". Diameter of rings—1.4".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

17.—KUMPTA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
759	Kumpta.	Hubli.	1929-30
1129	"	"	1930-31
1369	"	"	1931-32
1891	"	"	1932-33
2298	"	Gadag.	1933-34
2872	"	"	1934-35
3399	"	Hubli.	1935-36
3698	"	"	1936-37

I.—SPINNING TESTS.

1. Treatment:—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal Cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper Feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report:—

(a) Cotton:—

KUMPTA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Creamy.	Dullish creamy.	Dullish creamy.	Dullish creamy.	Dullish creamy.	Creamy-white.	Creamy-white.	White to creamy-white; dullish.	Creamy-white.
.. .. Very leafy.	Leafy.	Leafy.	Very leafy.	Very leafy.	Leafy.	Very leafy.	Leafy; slightly stained.	Leafy.
.. .. Good.	Moderately good.	..	Good.	Good.	Good smooth.	Good.	Good.	Good bodied.
neppiness	A little nepped and knotted.	..	Well-ginned.	Well-ginned.	A trifle knotted.	Well-ginned.	Well-ginned.	Well-ginned.
.. ..	..	Too much out and crushed besides 1.1% ginned and unginned.	A few ginned and unginned.	..	1.56% unginned and partly ginned.	..	..	..
.. .. Fairly clean.	Fairly clean.	Clean.	Almost clean.	Fairly leafy.	Clean.	Almost clean.	A little leafy.	Good; fairly free of neps
.. ..	..	Even and practically free of nep.	Good.	Even and nep-free.	Good.	Good.	Even; nep-free.	..
0 flat strips	14.7 grams.	16.3 grams.	14.3 grams.	15.2 grams.	16.2 grams.	19.3 grams.	14.3 grams.	23.5 grams.
.. .. Licker-in No. 1 is mainly leaf.	..	..	..	..	Fairly well-watered.	..	..	..

(b) Yarn:—

KUMPTA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. .. Fairly clean.	Fairly clean.	Almost clean.	Clean.	Fairly clean.	Leafy.	Almost clean.	A little leafy.	Fairly even.
.. .. Even.	Fairly even.	Even.	Fairly even.	Fairly even in the two lower counts.	Even.	Even.	..	..
.. .. Fairly free of nep.	Slightly neppy.	A trifle neppy.	Free of nep.	A little neppy.	Almost free of nep.	Almost free of nep.	Fairly free of nep.	..
.. ..	..	..	..	A little slabby.	..	..	..	..

3. Spinning Test Details and Results:—See Table 17 on page 51.

II. REPORT OF THE STANDARDS COMMITTEE FOR KUMPTA COTTON.

[illegible]

Table 17.—SPINNING TEST RESULTS FOR KUMPIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weights of sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE HUMIDITY.		RELATIVE HUMIDITY (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per Inch.	L.T.A.			BALISTICO.			Keps per yard.	Turns per Inch Actual.	Spinning Room.	Spinning Room.		
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of rupture (inch-lbs.)	Count-Work Product.						
760	Kumpia	..	1929-30	17-6-30	20	10	14.1	10.0	0.6	23.1	10	196	..	4.00	17.08	20.0	80.0	1018	111.8	2273	3	2.0	17.2	80	68	67
760	Kumpia	..	1929-30	17-6-30	24	..	..	..	..	..	32	176	..	5.81	19.73	23.8	62.6	1490	83.8	2028	4	2.0	18.0	90	66	67
1120	Kumpia	..	1930-31	27-7-31	24	10	14.4	10.3	0.5	23.5	24	180	9600	5.68	19.73	24.0	65.7	1677	103.0	2411	4	1.7	18.0	85	80	83
1120	Kumpia	..	1930-31	27-7-31	30B	..	..	..	..	..	42	153	9700	7.00	23.11	20.6	47.7	1112	82.4	2308	5	3.0	22.2	86	76	85
1300	Kumpia	..	1931-32	30-6-32	24	10	15.0	9.2	0.5	23.9	42	180	9650	6.77	19.73	22.7	67.2	1625	97.6	2284	3	1.6	19.1	90	69	73
1300	Kumpia	..	1931-32	22-6-32	30B	..	..	..	..	..	23	153	9650	7.11	23.26	20.6	40.3	1450	81.2	2305	4	2.0	22.6	87	70	77
1891	Kumpia	..	1932-33	30-8-33	24	10	16.0	8.9	0.5	23.5	160	178	9600	6.53	19.73	23.5	68.5	1375	94.0	2205	4	0.5	18.8	87	70	67
1891	Kumpia	..	1932-33	31-8-33	30A	..	..	..	..	..	109	160	9000	6.84	21.86	28.6	42.3	1210	70.4	2223	5	1.0	20.0	86	73	66
2298	Kumpia	..	1933-34	24-5-34	20	10	14.7	9.7	0.6	23.4	21	198	9650	6.81	17.98	19.8	77.1	1627	111.4	2273	4	1.2	17.1	88	68	70
2298	Kumpia	..	1933-34	23-5-34	24	..	..	..	..	..	32	180	9550	6.32	19.73	23.4	63.1	1481	97.2	2343	5	1.8	19.0	89	69	70
2298	Kumpia	..	1933-34	23-5-34	30A	..	..	..	..	..	73	154	9100	6.62	21.86	20.8	41.2	1528	77.2	2302	6	1.5	20.9	89	69	70
2872	Kumpia	..	1934-35	26-9-35	20	10	10.0	13.8	0.4	23.2	20	197	9700	5.05	17.98	20.4	89.2	1820	127.2	2509	3	1.2	17.1	86	68	71
2872	Kumpia	..	1934-35	21-9-35	21	..	..	..	..	..	18	176	9650	6.23	19.73	23.4	74.9	1753	109.0	2540	3	1.2	19.0	86	69	72
3390	Kumpia	..	1935-36	16-10-36	20	10	9.4	10.7	0.4	19.4	21	194	9700	6.10	17.98	20.4	85.3	1710	116.0	2332	3	1.2	17.2	89	71	60
3390	Kumpia	..	1935-36	16-10-36	24	..	..	..	..	..	10	178	9700	6.56	19.73	23.4	72.3	1692	106.2	2420	4	1.5	19.1	87	69	60
3390	Kumpia	..	1935-36	16-10-36	30A	..	..	..	..	..	17	117	9600	6.76	21.86	29.4	52.1	1641	86.0	2403	4	1.5	21.1	86	61	63
3608	Kumpia	..	1936-37	13-7-37	20	10	12.5	13.8	0.5	25.0	16	194	9600	6.09	17.98	19.6	86.1	1693	131.0	2640	3	1.2	17.2	83	80	82
3608	Kumpia	..	1936-37	13-7-37	24	..	..	..	..	..	32	174	9500	6.35	19.73	21.3	62.1	1600	104.8	2526	4	1.5	18.8	82	83	70
3608	Kumpia	..	1936-37	13-7-37	30	..	..	..	..	..	30	183	9600	6.62	21.86	30.3	45.9	1391	84.8	2595	5	1.5	20.9	83	81	78

* Diameter of ring frame front roller—f". Diameter of rings—1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

18.—UPLAND COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
796	Upland	Gadag	.. 1929-30	2475	Upland	Gadag	.. 1933-34
1158	"	Hubli	.. 1930-31	2829	"	"	.. 1934-35
1396	"	Gadag	.. 1931-32	3325	"	"	.. 1935-36
1884	"	"	.. 1932-33	3655	"	"	.. 1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

		UPLAND.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	..	Creamy-white; bright.	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.	White to creamy-white.
Cleanliness ..	..	Leafy ..	Leafy; slightly stained.	Somewhat leafy.	Leafy ..	Very leafy ..	Fairly clean ..	Slightly stained.	Fairly clean.
Feel ..	..	Good ..	..	Good softish ..	Softish ..	Good ..	Soft; poorish.	Good.	Good bodied.
Ginning and Neppiness.	..	A little nepped and knotted.	Well-ginned except for slight knottiness.	Well-ginned ..	Somewhat knotted in ginning.	Fairly well-ginned.	Well-ginned ..	A trifle knotted.	Well-ginned.
Seeds ..	..	A fair amount of undeveloped seed; 0.63% full clean.	0.6% ginned and unginned.	0.5% unginned.	..	..	Some seeds ..	..	..
Card Sliver ..	..	..	Almost clean ..	Clean ..	Clean ..	Leafy ..	Clean; soft ..	Clean.	Clean.
Card Web ..	..	A little cloudy and neppy.	Practically free of nep.	Good ..	Good ..	Somewhat cloudy.	Slightly neppy.	Good.	Good; nep-free.
Weight of 10 flat strips.	..	26.8 grams	24.2 grams	23.7 grams	25.7 grams	26.4 grams	24.1 grams	15.3 grams.	17.2 grams.
Remarks ..	..	..	..	..	..	..	..	..	..

(b) *Yarn* :—

		UPLAND.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	..	Fairly leafy ..	Almost clean ..	Almost clean ..	Somewhat leafy.	Leafy ..	Clean ..	Almost clean.	Slightly leafy.
Evenness ..	..	Very neppy ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Even.	Even.
Neppiness ..	..	Fairly even ..	A trifle neppy.	A trifle neppy.	A little neppy.	Somewhat neppy.	A trifle neppy.	Practically free of nep.	Practically free of neps.
Slubbiness ..	..	..	..	..	A trifle slubby.	..	Somewhat slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 18 on page 54.

Table 18.—SPINNING TEST RESULTS FOR UPLAND COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS*.						YARN TEST RESULTS.						TEMPERATURE. (°F.)	RELATIVE HUMIDITY. (%)				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	IMA.			BALLASTIC.			Evenness Class.			Keps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Work of Machine (inches).	Count-Work Product.								
796	Upland ..	1929-30	23-7-30	20	10	10.3	13.6	0.5	23.1	50	194	..	5.10	17.08	19.7	80.1	1378	198.4	2518	3	0.5	17.1	80	73	76		
796	Upland ..	1929-30	24-7-30	24	..	..	..	..	..	24	180	..	6.10	19.73	23.9	58.2	1391	21.0	2181	4	11.7	18.8	86	70	72
1168	Upland ..	1930-31	17-8-31	20	10	9.2	12.3	0.3	20.9	11	190	9400	5.05	17.08	20.0	71.1	1482	122.2	2456	4	2.0	17.1	81	70	81		
1168	Upland ..	1930-31	18-8-31	24	..	..	..	..	..	18	160	8900	6.13	19.73	24.1	57.5	1380	98.4	2411	5	2.7	18.6	85	77	77
1396	Upland ..	1931-32	18-7-32	20	10	10.0	13.5	0.7	22.7	114	181	9200	5.08	17.08	10.7	62.0	1221	118.2	2317	4	2.0	17.1	86	78	79		
1396	Upland ..	1931-32	18-7-32	24	..	..	..	..	..	102	157	8500	5.08	19.73	24.0	43.0	1010	91.0	2253	5	2.5	19.0	86	76	70
1884	Upland ..	1932-33	19-8-33	20	10	14.4	13.8	0.6	26.0	192	185	9000	5.08	17.98	19.8	60.9	1206	109.1	2177	1	3.0	17.5	87	70	69		
1884	Upland ..	1932-33	22-8-33	24	..	..	..	..	..	200	156	8500	6.10	19.73	23.9	45.1	1085	92.6	2268	5	3.5	19.2	86	69	70
2475	Upland ..	1933-34	5-9-34	20	10	13.1	14.7	0.4	26.2	31	187	9200	6.01	17.98	20.2	72.9	1473	117.2	2391	4	3.8	17.0	84	77	78		
2475	Upland ..	1933-34	5-9-34	24	..	..	..	..	..	55	172	9250	6.19	19.73	24.3	51.2	1317	97.0	2357	5	4.0	19.0	83	80	72
2829	Upland ..	1934-35	27-8-35	20	10	13.1	12.9	0.6	24.8	57	176	8800	5.08	17.08	20.2	61.2	1207	129.2	2019	4	1.8	17.3	86	71	73		
2829	Upland ..	1934-35	26-8-35	24	..	..	..	..	..	68	164	8550	6.28	19.73	23.8	51.3	1292	111.8	2027	5	2.0	18.7	85	70	73
3325	Upland ..	1935-36	20-8-36	20	10	8.8	10.4	0.3	18.4	21	190	9300	5.05	17.08	19.6	80.4	1576	137.8	2750	4	1.2	17.3	80	71	78		
3325	Upland ..	1935-36	21-8-36	24	..	..	..	..	..	23	172	9350	6.10	19.73	23.1	62.8	1451	111.0	2633	4	1.0	19.0	85	73	70
3655	Upland ..	1936-37	17-6-37	16	9	8.0	10.6	0.4	18.9	18	210	9300	4.00	15.97	15.5	109.2	1693	211.1	3277	3	1.3	5.5	90	72	79		
3655	Upland ..	1936-37	14-6-37	20	..	..	..	..	..	31	191	9500	5.83	17.98	10.4	71.8	1393	130.0	2601	3	0.9	17.0	90	66	77
3655	Upland ..	1936-37	14-6-37	24	..	..	..	..	..	41	172	9500	5.01	19.73	23.7	52.8	1231	103.0	2476	4	0.5	18.8	90	66	75

* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

19.—BIJAPUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
750	Bijapur	Bijapur	1929-30
1156	"	"	1930-31
1397	"	"	1931-32
1892	"	"	1932-33
2474	"	"	1933-34
2842	"	"	1934-35
3324	"	"	1935-36
3652	"	"	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—Upto 1933-34.—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	BIJAPUR.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy ..	Creamy-white ..	Dull creamy ..	Dullish creamy-white ..	Creamy-white ..	Creamy-white ..	Creamy ..	Creamy ..
Cleanliness ..	Very leafy ..	Very leafy ..	Leafy ; somewhat stained ..	Very leafy ..	Very leafy ..	Leafy ..	Leafy ..	Leafy ..
Feel	Good ..	Full-bodied ..	Poorish soft ..	Good ..	Good ..	Poorish ..	Fairly good ..	Good ..
Ginning and neppiness ..	Fairly well-ginned ..	..	A good deal knotted ..	Somewhat knotted ..	Well-ginned ..	Well-ginned ..	A little knotted ..	Well-ginned ..
Seeds	1.17% full clean and cut ..	2% ginned and unginned ..	0.75% ginned and unginned ..	0.6% ginned and unginned ..	..	..	Some seeds ..	0.35 per cent ..
Card Sliver ..	..	Fairly clean ..	A little leafy ..	Clean ..	Fairly leafy ..	Little leafy ..	Almost clean ..	Leafy ..
Card Web ..	..	Even and free of nep ..	Fairly good ..	Even and nep free ..	Good ..	Good ..	Good ..	Good ..
Weight of 10 flat strips ..	14.2 grams ..	19.5 grams ..	22.1 grams ..	15.0 grams ..	21.9 grams ..	22.3 grams ..	15.4 grams ..	16.1 grams ..
Remarks .. ..	..	Fully pressed ..	..	..	..	..	..	..

(b) Yarn :—

	BIJAPUR.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Fairly clean ..	Clean ..	Somewhat leafy ..	Clean ..	A little leafy ..	Fairly clean ..	Almost clean ..	Leafy ..
Evenness ..	Even ..	Somewhat uneven ..	Even in lower counts only ..	Fairly even ..	Fairly even ..	Even ..	Very even ..	Even ..
Neppiness ..	Free of nep ..	Fairly free of nep ..	Fairly free of nep ..	Free of nep ..	Fairly free of nep ..	Free of nep ..	Practically free of nep ..	Slightly neppy ..
Slubbiness ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 19 on page 57.

Table 19.—SPINNING TEST RESULTS FOR BIJAPUR COTTON.

Sample No.	Cotton.	Season.	Date of spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	LEA.		BALASTIC.		Neeps per yard.			Turns per inch Actual.	Count-Work Product.	Evenness Class.		
760	Bijapur	1929-30	18-6-30	20A	10	11.5	9.9	0.6	22.7	50	186	..	4.81	17.98	19.5	65.5	1277	20.2	182.0	2060	4	1.5	17.0	90	64	70
760	Bijapur	1929-30	18-6-30	20C	..	..	..	..	..	35	107	..	5.00	20.23	19.5	76.1	1401	19.9	114.0	2269	4	1.7	19.5	92	61	70
1156	Bijapur	1930-31	18-8-31	20A	10	12.3	11.0	0.6	22.5	91	157	7700	5.83	17.98	19.4	53.8	1044	19.9	104.2	2074	5	2.0	17.2	86	78	79
1156	Bijapur	1930-31	18-8-31	20C	..	..	..	..	..	86	170	9700	5.95	20.23	20.3	59.8	1214	20.4	103.0	2101	5	1.7	19.2	86	70	81
1307	Bijapur	1931-32	21-7-32	12	10	15.0	13.0	0.6	28.1	51	188	7250	4.13	13.92	12.2	98.7	1204	12.0	205.4	2465	3	1.8	13.5	87	70	80
1307	Bijapur	1931-32	10-7-32	10	..	..	..	..	..	48	176	7800	5.22	15.97	15.8	65.7	1038	10.1	124.0	1990	4	1.5	15.4	86	70	76
1802	Bijapur	1932-33	4-9-33	16	10	18.1	9.5	0.6	26.4	102	182	8000	5.43	15.97	16.0	70.0	1130	16.1	125.6	2022	4	0.5	15.1	86	72	70
1802	Bijapur	1932-33	4-9-33	20A	..	..	..	..	..	188	181	9000	5.81	17.98	19.4	55.8	1083	19.0	102.8	2015	5	1.0	17.0	87	70	75
2174	Bijapur	1933-34	5-9-34	16	10	13.1	13.0	0.4	24.8	18	192	8250	6.43	15.97	15.6	92.1	1497	15.7	148.0	2324	4	1.8	15.4	85	78	78
2174	Bijapur	1933-34	5-9-34	20A	..	..	..	..	..	57	187	9200	6.81	17.98	10.7	64.3	1267	10.9	107.2	2133	5	1.5	17.2	84	77	73
2312	Bijapur	1934-35	6-9-35	16	10	11.9	12.8	0.3	23.4	42	193	8700	5.43	15.97	16.2	99.0	1094	15.9	182.4	2900	3	1.0	15.4	85	74	76
2312	Bijapur	1934-35	10-9-35	20A	..	..	..	..	..	31	177	8750	5.57	17.98	19.3	81.5	1573	10.2	133.8	2569	4	0.8	17.0	86	70	82
2312	Bijapur	1934-35	18-9-35	20B	..	..	..	..	..	10	190	9400	5.98	19.26	20.0	81.4	1612	10.9	123.4	2468	3	1.5	18.4	85	73	70
3324	Bijapur	1935-36	10-8-36	14	10	11.9	10.6	0.3	21.5	22	198	8600	5.55	14.98	14.7	81.1	1192	14.5	182.1	2645	3	0.8	14.0	86	72	75
3324	Bijapur	1935-36	20-8-36	16	..	..	..	..	..	12	194	8450	6.25	15.97	10.2	71.6	1100	10.2	145.8	2362	3	0.5	15.4	85	74	70
3324	Bijapur	1935-36	10-8-36	20B	..	..	..	..	..	21	194	10200	5.60	19.26	19.7	68.7	1363	20.0	110.2	2324	3	1.0	18.7	80	72	70
3652	Bijapur	1936-37	8-6-37	11	10	13.8	10.0	0.4	23.7	0	190	7750	5.10	14.08	14.0	94.7	1320	13.7	184.0	2621	3	1.5	14.3	91	65	68
3652	Bijapur	1936-37	10-6-37	16	..	..	..	..	..	54	191	8500	4.89	15.97	16.7	67.1	1121	10.6	130.6	2168	4	1.2	15.3	91	67	70
3652	Bijapur	1936-37	10-6-37	20B	..	..	..	..	..	26	192	10200	6.14	19.26	20.6	56.2	1158	20.7	104.8	2169	4	1.2	16.2	91	68	74

* Diameter of ring frame front roller—F. Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

20.—BAGALKOTE COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
761	Bagalkote	Bagalkote	1929-30
1157	"	"	1930-31
1433	"	"	1931-32
1893	"	"	1932-33
2460	"	"	1933-34
2840	"	"	1934-35
3391	"	"	1935-36
3653	"	"	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

BAGALKOTE.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Colour	Creamy ..	Creamy ..	Creamy-white ..	Creamy ..	Dullish creamy ..	Creamy ..	Creamy-white ..	Creamy ..	
Cleanliness	Very leafy ..	Leafy ..	Leafy; slightly stained ..	Somewhat stained; leafy ..	Leafy ..	Leafy ..	Leafy ..	Leafy ..	
Feel	Good ..	Good ..	Good ..	Good ..	Good ..	Fairly good ..	Good ..	Good ..	
Ginning and neppiness ..	Fairly well-ginned ..	Well-ginned ..	Well-ginned ..	Fairly well-ginned ..	Well-ginned ..	Good deal knotted and napped by ginning ..	Well-ginned ..	Well-ginned ..	
Seeds	1.8% seeds ..	A fair amount of cut seed; 1.9% ginned and unginned ..	0.75% unginned ..	1.2% ginned and unginned ..	2.97% partly ginned seeds and kapas ..	..	1.88% full clean seeds ..	Ginn and unginn 0.70% ..	
Card Sliver .. ..	..	Fairly clean ..	Almost clean ..	Clean ..	A little leafy ..	Fairly clean ..	A little leafy ..	A little leafy ..	
Card Web .. ..	..	Even and free of nep ..	Fairly good ..	Even and nep-free ..	..	Somewhat neppy ..	Good ..	Good; Nep-free ..	
Weight of 10 flat strips ..	15.5 grams ..	21.2 grams ..	19.2 grams ..	19.5 grams ..	24.4 grams ..	27.9 grams ..	17.5 grams ..	14.1 gram ..	
Remarks .. ..	..	A trifle knotty ..	Ring frame run at unusually low speed due to excessive breakages ..	..	..	..	..	..

(b) *Yarn* :—

BAGALKOTE.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Cleanliness	Clean ..	Slightly leafy ..	Fairly clean ..	Clean ..	Almost clean ..	Fairly clean ..	A little leafy ..	Fairly leafy ..	
Evenness	Fairly even ..	Fairly even ..	Unusually uneven ..	Fairly even ..	Fairly even ..	Even ..	Even ..	Even ..	
Neppiness	Free of nep ..	Fairly free of nep ..	Almost nep-free ..	Almost free of nep ..	Almost free of nep ..	Somewhat neppy ..	Almost free of nep ..	Almost free of nep ..	
Slubbiness .. ..	..	..	A good deal slubby ..	..	..	A trifle slubby ..	..	..

3. Spinning Test Details and Results :—See Table 20 on page 60.

II.—REPORT OF THE STANDARDS COMMITTEE FOR BAGALKOTE COTTON.

BAGALKOTE.										
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2, July/Aug. 1933 delivery.	F. G. M. G. Broach. Hedge No. II.	F. G. M. G. Broach. Hedge No. 2, July/Aug. 1935 delivery.	F. G. M. G. Broach. Hedge No. 2, April/May 1937 delivery.	F. G. M. G. Broach. H. G. No. 2, July/ Aug. 1937 delivery.		
Class	Fine.	Fine.	Fine.	Fully good.	Fine.	Fine.	Fine.	Fine to Superfine.		
Colour	Reddish.	Greyish creamy.	Dullish brown.	Brown.	Brownish.	Brownish white.	Creamy brown.	Brownish.		
Staple Length ..	13/16 inch.	27/32 inch.	3/4 inch.	11/16 inch.	Barely 3/4 inch.	13/16 inch.	13/16 inch.	3/4 inch.		
Staple Strength ..	Fair.	Fair.	Fair.	Good.	Fair.	Fair.	Good.	Fair.		
Regularity	Irregular.	Irregular.	Irregular.	Regular.	Fair.	Fair.	Regular.	Regular.		
Value above or below contract rate	Rs. 25 on.	Rs. 20 on.	Par.	Par.	Rs. 15 off.	Rs. 20 on.	Rs. 5 off.	Par.		
Basis	Rs. 212.	Rs. 162.	Rs. 172.	F. G. M. G. Broach. No. 2, July/Aug. 1933 delivery. Rs. 207.	F. G. M. G. Broach. H. G. No. II, July/ August 1934 deli- very, Rs. 220.	F. G. M. G. Broach. Hedge No. 2, July/Aug. 1935 delivery. Rs. 221.	F. G. M. G. Broach. Hedge No. 2, April/May 1937 delivery. Rs. 221.	F. G. M. G. Broach. H. G. No. 2, July/ Aug. 1937 delivery. Rs. 229.		
Date of Valuation ..	8-8-30.	10-8-31.	28-7-32.	20-7-33.	13-8-34.	20-8-35.	29-9-36.	3-8-37.		
Remarks .. ..	..	..	..	..	..	..	..	..

T-44. 20 —SPINNING TEST RESULTS FOR BAGALKOTE COTTON:

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	LEA.			BALLISTICS.			Revs per yard.			Turns per inch Actual.	Spinning Room.	Testing Room.
															Counts Actual.	Strength (lbs.).	Count-Strength	Counts Actual.	Work of Hapline (inch-lb.).	Count-Work.						
761	Bagalkote ..	1929-30	18-6-30	20A	10	14.5	9.3	0.6	23.0	65	186	..	5.00	17.08	19.7	69.6	1371	10.7	112.4	2214	4	1.7	17.0	00	64	79
761	Bagalkote ..	1929-30	18-6-30	20C	10	..	..	..	..	35	107	..	5.10	20.23	19.7	78.4	1544	19.0	111.6	2221	4	2.0	10.4	92	61	75
1157	Bagalkote ..	1930-31	14-8-31	20A	10	13.6	12.2	0.5	24.5	52	161	8100	6.05	17.08	19.0	37.0	1184	20.3	104.6	2123	5	2.2	17.3	85	78	80
1137	Bagalkote ..	1930-31	14-8-31	20C	10	..	..	..	..	63	100	10850	6.19	20.23	20.0	66.1	1322	20.2	106.8	2157	4	2.0	19.4	87	74	79
1433	Bagalkote ..	1931-32	26-8-32	12	9	13.7	14.8	0.8	27.1	124	161	6600	4.00	11.68	12.0	56.6	679	12.1	184.8	2236	3	1.2	14.2	89	70	72
1433	Bagalkote ..	1931-32	25-8-32	16B	10	..	..	..	..	130	130	8000	5.00	16.97	15.8	31.3	542	15.0	117.6	1870	6	1.5	10.3	89	71	70
1433	Bagalkote ..	1931-32	26-8-32	20C	10	..	..	..	..	173	110	6200	5.81	20.23	19.2	25.8	403	18.8	95.4	1704	7	1.0	19.4	80	70	69
1898	Bagalkote ..	1932-33	4-9-33	16A	10	13.8	11.7	0.3	24.1	55	182	8000	5.23	15.07	15.6	93.3	1455	16.0	137.2	2195	4	1.5	15.3	86	72	74
1893	Bagalkote ..	1932-33	4-9-33	16B	10	..	..	..	..	18	193	8800	5.34	16.07	15.9	99.4	1353	16.0	147.1	2358	4	1.9	16.0	87	67	78
2460	Bagalkote ..	1933-34	22-8-34	16A	10	15.0	14.0	0.3	27.1	12	183	8250	6.53	15.07	16.4	61.5	1286	16.4	139.2	2266	4	1.8	15.5	84	77	90
2460	Bagalkote ..	1933-34	22-8-34	20A	10	..	..	..	..	47	176	8460	6.83	17.08	19.0	64.6	1280	19.7	100.4	2166	4	2.2	17.8	81	76	78
2460	Bagalkote ..	1933-34	22-8-34	20B	10	..	..	..	..	21	188	9600	6.83	19.26	19.8	56.2	1113	19.8	112.4	2220	4	2.0	18.8	85	74	74
2840	Bagalkote ..	1934-35	3-9-35	16A	10	11.2	15.2	0.3	24.9	18	193	8500	6.65	15.07	16.7	110.2	1840	16.4	192.8	3162	3	4.0	15.4	84	78	73
2840	Bagalkote ..	1934-35	3-9-35	20A	10	..	..	..	..	16	180	8560	5.93	17.08	20.5	70.7	1631	20.4	130.4	2660	4	3.5	17.2	83	77	72
2840	Bagalkote ..	1934-35	3-9-35	20B	10	..	..	..	..	6	186	9600	5.93	19.26	20.0	90.0	1600	20.1	133.6	2655	4	2.8	18.5	85	74	71
2840	Bagalkote ..	1934-35	17-9-35	24	10	..	..	..	..	36	176	9550	7.22	19.73	25.5	56.6	1443	25.1	97.0	2464	4	3.2	19.0	84	76	70
3391	Bagalkote ..	1935-36	7-10-36	16	10	14.5	12.2	0.4	25.2	12	194	8900	5.43	15.97	16.1	85.7	1390	16.4	133.2	2266	3	1.2	15.0	88	72	70
3391	Bagalkote ..	1935-36	5-10-36	20A	10	..	..	..	..	10	176	8500	5.95	17.04	20.1	61.2	1290	20.6	108.4	2233	4	1.2	17.2	89	70	71
3391	Bagalkote ..	1935-36	6-10-36	20B	10	..	..	..	..	42	194	10200	6.67	19.26	20.1	72.2	1431	20.6	110.6	2278	4	1.0	18.5	90	70	72
3653	Bagalkote ..	1936-37	11-6-37	14	10	14.4	8.1	0.2	21.5	0	203	8350	3.24	11.93	11.0	101.5	1463	19.7	189.2	2592	3	0.8	14.5	91	69	75
3653	Bagalkote ..	1936-37	10-6-37	16	10	..	..	..	..	12	191	8350	4.77	15.97	15.0	88.2	1402	15.0	113.4	2280	3	0.5	15.0	92	68	73
3653	Bagalkote ..	1936-37	11-6-37	20	10	..	..	..	..	10	190	10300	6.14	19.26	20.3	63.3	1896	20.0	111.8	2236	4	0.2	18.5	91	69	78

• Diameter of ring-frame front roller—7/8". Diameter of ring—1.5/8."

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

21.—CAMBODIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
762	Cambodia.	Coimbatore.	1929-30.
1159	"	Tirupur.	1930-31.
1398	"	"	1931-32.
1894	"	"	1932-33.
2436	"	"	1933-34.
2839	"	"	1934-35.
3390	"	"	1935-36.
3701	"	"	1936-37.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal Cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper Feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white to creamy; bright.	Creamy-white; bright.	Creamy-white; bright.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.
Cleanliness	Clean.	Fairly clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean; a stained.
Feel	Good-bodied.	Very good.	Good.	Good-bodied.	Good.	Softish smooth.	Good-bodied.	..
Ginning and Neppiness.	Nepped and knotted.	Well-ginned.	Fairly well-ginned.	Fairly well-ginned.	A little knotted in ginning.	A little knotted in ginning.	Fairly well-ginned.	A little ted.
Seeds .. ..	..	..	..	..	1% full seeds.	Some unginned.	..	A few f ginned
Card Sliver .. ..	..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.
Card Web	A little neppy.	A trifle neppy.	Fairly good.	Fairly good.	Even and somewhat neppy.	Fairly good.	A little neppy.	Neppy.
Weight of 10 flat strips..	22.1 grams.	25.3 grams.	22.2 grams.	27.3 grams.	28.3 grams.	31.0 grams.	21.2 grams.	26.0 ..
Remarks .. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Clean ..	Clean ..	Clean ..	Clean ..	A little leafy ..	Clean ..	Almost clean.	Fairly
Evenness	Fairly even ..	Even ..	Even ..	Fairly even ..	Fairly even ..	Even ..	Even in the 20's only.	Fairly
Neppiness	Fairly neppy ..	A little neppy ..	A little neppy ..	Somewhat neppy.	Somewhat neppy.	Somewhat neppy.	Fairly neppy.	Neppy.
Slabbiness .. ..	..	..	..	..	..	..	..	A little slubby

3. Spinning Test Details and Results :—See Table 21 on page 63.

II.—REPORT OF THE STANDARDS COMMITTEE FOR CAMBODIA COTTON.

CAMBODIA									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. No. 2, July/Aug. 1933 delivery.	F. G. M. G. Broach. No. 2.	F. G. M. G. Broach. Hedge Contract No. 2, July/Aug. 1935 delivery.	F. G. M. G. Broach. Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Broach. H. C. No. 2, July/ Aug. 1937 delivery.	
Class	.. Fine.	Fully good.	Superfine.	Fine to superfine.	Barely fully good.	Strict Fine.	Fine.	Fine.	
Colour	.. Creamy.	Creamy.	Creamy.	Creamy-white.	Dull creamy.	Creamy-white.	Creamy.	Creamy.	
Staple Length	.. One inch.	31/32 inch.	One inch.	31/32 inch.	15/16 inch.	15/16 inch.	15/16 inch.	29/32 inch.	
Staple Strength	.. Good.	Good.	Good.	Good.	Good.	Fair.	Fair.	Fair.	
Regularity	.. Regular.	Regular.	Regular.	Regular.	Slightly irregular.	Fair.	Moderately regular.	Fair.	
Value above or below contract rate..	.. Rs. 90 on.	Rs. 70 on.	Rs. 60 on.	Rs. 65 on.	Rs. 65 on.	Rs. 75 on.	Rs. 35 on.	Rs. 85 on.	
Basis	.. Rs. 242.	Rs. 162.	Rs. 165.	F. G. M. G. Broach. No. 2, July/Aug. 1933 delivery, Rs. 207.	F. G. M. G. Broach. No. 2, July/Aug. 1934 delivery, Rs. 221.	F. G. M. G. Broach. Hedge Contract No. 2, July/Aug. 1935 delivery, Rs. 224.	F. G. M. G. Broach. Hedge Contract No. 2, April/May 1937 delivery, Rs. 221..	F. G. M. G. Broach. H. C. No. 2, July/ August delivery, Rs. 222.	
Date of Valuation	.. 6-6-30.	10-8-31.	13-7-32.	26-7-33.	31-7-34.	20-8-35.	28-9-36.	30-6-37.	
Remarks	

Table 21—SPINNING TEST RESULTS FOR CAMBODIA COTTON.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle R. P. M.	Draft.	Turns per Inch.	I.E.A.			Diameter.			Neps per Yard.	Turns per Inch Actual.	Spinning Room.	Testing Room.			
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
702	Cambodia ..	1929-30	10-6-30	24	10	5.6	11.3	0.6	16.7	16	175	..	5.95	19.73	23.6	64.8	1529	23.6	102.4	2417	4	5.5	19.0	91	60	74	
702	Cambodia ..	1929-30	20-6-30	30A		..	..	..	..	30	160	..	7.50	21.86	30.0	40.4	1392	30.0	68.6	2058	5	5.7	21.1	89	66	76
1159	Cambodia ..	1930-31	18-8-31	24	10	5.8	12.6	0.5	18.9	31	180	9700	5.91	19.73	23.3	73.9	1722	23.3	118.8	2768	3	3.5	18.8	84	76	82	
1159	Cambodia ..	1930-31	18-8-31	30B		..	..	..	..	22	160	9700	7.30	23.11	30.1	53.6	1613	29.5	90.4	2667	4	4.7	22.1	84	78	80
1308	Cambodia ..	1931-32	20-7-32	24	10	6.0	14.7	0.4	19.8	20	178	9600	6.70	19.73	23.5	68.6	1612	23.5	113.0	2678	3	2.8	19.2	85	77	78	
1308	Cambodia ..	1931-32	20-7-32	30A		..	..	..	..	26	168	9650	7.22	21.86	20.5	51.4	1516	20.5	86.6	2555	4	3.5	21.4	80	76	82
1801	Cambodia ..	1932-33	30-8-33	24	10	5.5	13.8	0.4	18.9	55	178	9600	5.53	19.73	23.6	65.6	1518	24.2	110.0	2602	4	3.5	19.1	87	70	66	
1801	Cambodia ..	1932-33	30-8-33	30A		..	..	..	..	70	162	9700	7.03	21.86	20.9	45.2	1361	30.1	83.2	2474	5	3.8	20.6	88	68	68
2130	Cambodia ..	1933-34	9-8-34	20	10	7.5	14.6	0.4	21.3	10	107	9550	5.81	17.98	20.0	83.0	1672	20.0	132.2	2664	3	5.2	17.3	84	80	82	
2130	Cambodia ..	1933-34	9-8-34	30A		..	..	..	..	43	102	9500	0.71	21.86	30.8	40.4	1420	30.7	83.0	2548	5	4.2	21.4	84	80	82
2130	Cambodia ..	1933-34	9-8-34	34		..	..	..	..	48	146	9050	7.13	23.26	33.7	39.6	1335	33.7	75.0	2528	6	4.5	22.6	84	80	82
2830	Cambodia ..	1934-35	4-9-35	20	10	5.0	14.8	0.3	19.2	5	107	9700	6.07	17.98	20.2	91.2	1842	20.6	134.4	2769	3	3.8	17.1	85	72	72	
2830	Cambodia ..	1934-35	4-9-35	30A		..	..	..	..	13	138	9700	0.28	21.86	20.8	54.5	1624	20.7	88.0	2631	4	3.5	21.1	86	72	74
2830	Cambodia ..	1934-35	5-9-35	34		..	..	..	..	12	151	9700	7.14	23.26	33.2	47.1	1564	33.5	80.8	2707	5	3.5	22.0	86	71	76
3300	Cambodia ..	1935-36	5-10-36	20	10	5.5	12.1	0.3	17.2	0	106	9650	6.07	17.98	20.0	90.2	1804	20.0	133.4	2668	3	3.5	17.3	89	69	72	
3300	Cambodia ..	1935-36	6-10-36	30A		..	..	..	..	13	160	9100	6.63	21.86	20.3	57.0	1670	28.5	90.0	2565	5	3.2	20.9	89	72	72
3300	Cambodia ..	1935-36	7-10-36	34		..	..	..	..	12	140	9400	7.57	23.26	33.2	40.0	1627	32.7	77.2	2524	5	3.8	22.2	89	70	72
3701	Cambodia ..	1936-37	15-7-37	20	10	5.7	12.8	0.5	18.1	21	210	10250	6.28	17.98	20.2	92.0	1858	20.9	131.4	2740	3	4.2	17.1	85	81	78	
3701	Cambodia ..	1936-37	17-7-37	30A		..	..	..	..	30	174	10300	6.50	21.86	30.8	51.8	1688	30.5	87.6	2672	5	4.0	20.7	87	78	82
3701	Cambodia ..	1936-37	19-7-37	34		..	..	..	..	21	148	9900	7.13	23.26	31.4	46.2	1580	34.3	80.8	2771	6	4.8	22.1	85	79	82

* Diameter of ring frame front roller—7/8". Diameter of rings—1-5/8". † It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

22.—TINNEVELLY COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
797	Tinnevelly.	Tuticorin.	1929-30
1182	"	"	1930-31
1400	"	"	1931-32
1883	"	"	1932-33
2461	"	"	1933-34
2841	"	"	1934-35
3392	"	Virudanagar.	1935-36
3699	"	"	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	TINNEVELLY.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37
Colour	Creamy-white, fairly bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; bright.	Creamy-white, bright.	White to creamy-white; bright.	White to creamy-white.	Cream white.
Cleanliness ..	Fairly clean; a little stained.	Fairly clean; occasional spots of stain.	Fairly clean.	Clean.	Fairly clean.	Fairly clean.	Somewhat stained; a little leafy.	Clean.
Feel	Good soft.	Soft but good.	Good.	Good.	Smooth and bodied.	Good.	Good-bodied.	Good.
Ginning and neppiness ..	Fairly knotted and nepped.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned.	Slightly knotted.	Well-ginned.	A little knotted.	Knotted.
Seeds	0.78% fully clean.	..	..	..	..	..	..	Somo.
Card sliver .. ..	..	Practically clean.	Almost clean.	Clean.	Fairly clean.	Clean.	Almost clean.	Good.
Card web	Cloudy and neppy.	Even and free of nep.	Almost free.	Good.	A little neppy.	Good.	Good.	Good.
Weight of 10 flat strips ..	23.2 grams.	19.0 grams.	20.6 grams.	22.4 grams.	27.2 grams.	26.1 grams.	16.7 grams.	29.6 grams.
Remarks .. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

	TINNEVELLY.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Leafy.	A trifle leafy.	Clean.	Clean.	Almost clean.	Fairly clean.	Fairly clean.	A little leafy.
Evenness	Fairly even.	Fairly uneven.	Fairly even.	Fairly even.	Fairly even.	Even.	Even.	Even.
Neppiness	Very neppy.	Neppy.	Free of nep.	Free of nep.	Fairly neppy.	Fairly free of nep.	A little neppy.	Neppy.
Slubbiness .. ..	..	..	..	..	..	Somewhat slubby.	..	..

3. Spinning Test Details and Results :—See Table 22 on page 66.

ANNUAL REPORT OF THE STANDARDS COMMITTEE FOR TINNEVELLY COTTON.

	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-00	2100-01	2101-02	2102-03	2103-04	2104-05	2105-06	2106-07	2107-08	2108-09	2109-10	2110-11	2111-12	2112-13	2113-14	2114-15	2115-16	2116-17	2117-18	2118-19	2119-20	2120-21	2121-22	2122-23	2123-24	2124-25	2125-26	2126-27	2127-28	2128-29	2129-30	2130-31	2131-32	2132-33	2133-34	2134-35	2135-36	2136-37	2137-38	2138-39	2139-40	2140-41	2141-42	2142-43	2143-44	2144-45	2145-46	2146-47	2147-48	2148-49	2149-50	2150-51	2151-52	2152-53	2153-54	2154-55	2155-56	2156-57	2157-58	2158-59	2159-60	2160-61	2161-62	2162-63	2163-64	2164-65	2165-66	2166-67	2167-68	2168-69	2169-70	2170-71	2171-72	2172-73	2173-74	2174-75	2175-76	2176-77	2177-78	2178-79	2179-80	2180-81	2181-82	2182-83	2183-84	2184-85	2185-86	2186-87	2187-88	2188-89	2189-90	2190-91	2191-92	2192-93	2193-94	2194-95	2195-96	2196-97	2197-98	2198-99	2199-00	2200-01	2201-02	2202-03	2203-04	2204-05	2205-06	2206-07	2207-08	2208-09	2209-10	2210-11	2211-12	2212-13	2213-14	2214-15	2215-16	2216-17	2217-18	2218-19	2219-20	2220-21	2221-22	2222-23	2223-24	2224-25	2225-26	2226-27	2227-28	2228-29	2229-30	2230-31	2231-32	2232-33	2233-34	2234-35	2235-36	2236-37	2237-38	2238-39	2239-40	2240-41	2241-42	2242-43	2243-44	2244-45	2245-46	2246-47	2247-48
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Table 22.—SPINNING TEST RESULTS FOR TINNEVELLY COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE-HUMIDITY (%).		Relative Humidity (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			BALANCE.			Evenness Class.	Keps per yard.	Turns per Inch Actual.	Spinning Room.	Spinning Room.			
															Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.).	Count-Work Product.								
707	Tinnevely ..	1929-30	24-7-30	20A	10	8.0	12.4	0.4	10.8	36	176	..	5.21	17.98	19.5	75.5	1472	19.7	122.8	2419	4	14.5	17.1	80	76	78		
707	Tinnevely ..	1929-30	24-7-30	20C	10	..	..	..	..	30	192	..	5.21	20.23	19.5	83.1	1020	19.7	123.2	2427	4	13.0	19.2	87	71	75
1162	Tinnevely ..	1930-31	2-9-31	16	10	6.4	10.3	0.6	10.6	109	152	7350	5.95	15.97	15.0	53.9	841	15.6	127.8	1994	4	6.2	15.6	85	75	80		
1400	Tinnevely ..	1931-32	21-7-32	12	10	5.9	11.7	0.5	17.3	109	188	7250	5.00	13.92	12.4	84.4	1046	12.2	200.2	2442	4	0.8	13.3	82	76	86		
1400	Tinnevely ..	1931-32	21-7-32	16	10	..	..	..	..	104	162	7300	5.35	15.97	15.0	63.0	983	15.5	147.2	2332	4	1.2	15.3	83	74	85
1883	Tinnevely ..	1932-33	18-8-33	12	10	6.7	11.4	0.3	17.6	15	198	7650	5.00	13.92	12.1	105.8	1280	12.3	206.8	2514	3	1.0	13.4	87	69	70		
1883	Tinnevely ..	1932-33	18-8-33	16	10	..	..	..	..	36	180	8000	5.11	15.97	15.4	78.4	1207	15.8	170.0	2686	4	1.2	15.4	86	70	72
2461	Tinnevely ..	1933-34	22-8-34	16	10	6.5	13.7	0.2	19.5	0	188	8250	5.87	15.97	16.3	82.3	1341	16.1	155.6	2505	4	5.5	15.4	84	77	80		
2461	Tinnevely ..	1933-34	22-8-34	20A	10	..	..	..	..	36	175	8450	5.95	17.98	20.1	56.9	1144	20.2	115.2	2327	4	4.0	17.3	84	77	78
2461	Tinnevely ..	1933-34	22-8-34	20B	10	..	..	..	..	16	189	9800	5.83	19.26	19.4	75.2	1459	19.5	124.4	2426	4	4.8	18.6	85	74	74
2841	Tinnevely ..	1934-35	5-9-35	16	10	5.3	13.1	0.4	18.0	67	194	8000	5.32	15.97	18.3	71.4	1164	10.0	148.6	2378	3	1.5	15.4	85	70	73		
2841	Tinnevely ..	1934-35	9-9-35	20A	10	..	..	..	..	62	176	8750	5.83	17.98	20.2	48.6	982	20.1	111.2	2236	4	1.2	17.2	86	70	76
2841	Tinnevely ..	1934-35	9-9-35	20B	10	..	..	..	..	88	185	9650	5.83	19.26	20.4	61.8	1261	20.3	116.6	2267	4	1.5	18.6	86	71	83
3392	Tinnevely ..	1935-36	7-10-36	16	10	6.2	10.5	0.2	18.2	0	195	8800	5.54	15.97	15.6	103.6	1016	15.3	198.4	2026	3	2.8	15.2	89	72	70		
3392	Tinnevely ..	1935-36	8-10-36	20A	10	..	..	..	..	10	181	9950	5.95	17.98	19.6	78.9	1540	19.8	128.2	2538	3	3.2	17.3	89	69	70
3699	Tinnevely ..	1936-37	21-7-37	14	10	7.0	16.7	0.2	22.7	73	294	8400	4.24	14.98	14.7	90.7	1466	14.7	104.4	2358	4	4.2	14.4	85	78	80		
3699	Tinnevely ..	1936-37	15-7-37	16	10	..	..	..	..	0	196	8700	5.67	15.97	16.9	76.0	1294	16.5	168.0	2607	3	4.2	15.2	84	82	80
3699	Tinnevely ..	1936-37	14-7-37	20	10	..	..	..	..	21	195	9500	5.67	17.98	19.8	64.6	1279	19.4	126.4	2452	4	4.8	17.4	83	83	78

* Diameter of ring frame front roller—1". Diameter of rings—1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

23.—KARUNGANNI COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
763	Karunganni.	Tuticorin.	1929-30
1160	"	Virudanagar.	1930-31
1399	"	Tuticorin.	1931-32
1895	"	"	1932-33
2476	"	Tirupur.	1933-34
2843	"	Tuticorin.	1934-35
3393	"	Virudanagar.	1935-36
3700	"	Tuticorin.	1936-37

I.—SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutche (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter-Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

KARUNGANNI.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy white; bright.	Creamy white; bright.	Creamy white; brightish.	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.
Cleanliness ..	Clean.	Fairly clean.	Almost clean.	Clean.	Fairly clean.	Fairly clean.	Clean: a little stained.	Fairly clean.
Feel	Good soft.	Good.	Good.	Good-bodied.	Good soft.	Good smooth.	Good smooth.	Good smooth.
Ginning and nep-piness.	Badly strung and nepped.	Well-ginned.	Well-ginned apart from some knot-tiness.	Well-ginned.	Slightly knotted in ginning.	Fairly well-ginned.	Well-ginned.	A little knotted.
Seeds .. ..	..	..	..	..	..	..	..	..
Card Sliver ..	..	Almost clean.	Clean.	Clean.	Fairly clean.	Almost clean.	Fairly clean.	Clean.
Card Web ..	Fairly neppy.	Practically free of nep.	Fairly good.	Good.	Somewhat neppy.	Good.	Good.	Neppy.
Weight of 10 flat strips.	19.8 grams.	21.7 grams.	20.7 grams.	19.6 grams.	26.3 grams.	28.0 grams.	15.3 grams.	33.6 grams.
Remarks .. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

KARUNGANNI.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936
Cleanliness ..	Fairly clean.	Practically clean.	Clean.	Clean.	Fairly clean.	Clean.	Almost clean.	A little
Evenness ..	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Even.	Fairly even.	Even.	Even.
Neppiness ..	Neppy.	Somewhat neppy.	Somewhat neppy.	Free of nep.	Somewhat neppy.	Fairly neppy.	Fairly neppy.	Neppy.
Slabbiness ..	..	..	..	A trifle slubby.	..	A trifle slubby.	..	..

3. Spinning Test Details and Results :—See Table 23 on page 69.

II--REPORT OF THE STANDARDS COMMITTEE FOR KARUNGANNI COTTON.

[illegible]

Table 23.--SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27				
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										Spiraling Room.	Spiraling Room.	Spiraling Room.	Spiraling Room.	Spiraling Room.
						Blow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	Counts Actual.	I.E.A.		BALLISTIC.			Keweenaw Class.	Steps per yard.	Turns per Inch.							
																Count-Strongly Product.	Counts Actual.	Work of Spindle (inch-lb.)	Count-Work Product.											
763	Karunganni	1929-30	20-6-30	20A	10	5.5	10.1	0.4	15.3	35	159	..	5.10	17.93	19.4	76.0	1480	19.5	126.4	2465	4	6.0	16.3	90	63	77				
763	Karunganni	1929-30	20-6-30	20B		..	..	..	..	15	193	..	5.20	20.23	19.5	87.9	1714	19.4	135.0	2619	4	7.0	19.2	91	64	78
1160	Karunganni	1930-31	17-8-31	20A	10	6.9	11.0	0.6	19.8	97	190	9100	5.95	17.93	20.4	62.5	1275	20.4	150.5	2452	4	2.5	17.2	84	70	82				
1160	Karunganni	1930-31	18-8-31	24		..	..	..	..	71	160	8000	6.07	19.73	23.6	56.1	1324	24.5	103.6	2539	5	5.0	19.0	85	77	79
1399	Karunganni	1931-32	20-7-32	20A	10	5.8	11.4	0.6	17.0	135	186	9300	5.91	17.93	19.9	63.3	1260	20.2	117.2	2367	4	3.0	17.2	87	76	83				
1399	Karunganni	1931-32	21-7-32	24		..	..	..	..	118	159	8500	6.13	19.73	23.7	59.9	1208	23.5	104.4	2453	5	3.5	18.8	86	77	85
1895	Karunganni	1932-33	29-8-33	16	10	6.9	10.6	0.6	17.2	152	184	8200	5.33	15.97	15.7	62.4	1020	15.8	129.6	2043	4	0.5	15.3	87	63	69				
1895	Karunganni	1932-33	30-8-33	20A		..	..	..	..	223	166	8000	5.33	17.93	19.5	59.0	875	19.5	164.2	2071	5	1.0	17.2	83	67	63
2476	Karunganni	1933-34	5-9-34	16	10	7.5	13.3	0.3	20.1	6	192	8250	5.53	15.97	16.0	64.2	1507	15.9	163.2	2395	3	3.5	15.5	85	78	74				
2476	Karunganni	1933-34	5-9-34	20A		..	..	..	..	52	183	9250	6.22	17.93	20.1	63.9	1244	20.0	115.6	2312	4	4.0	17.3	83	81	71
2843	Karunganni	1934-35	9-9-35	16	10	6.2	13.8	0.3	19.4	30	193	8700	5.64	15.97	16.2	114.8	1860	15.8	209.6	2312	4	3.2	15.5	86	74	80				
2843	Karunganni	1934-35	10-9-35	20A		..	..	..	..	16	194	9500	5.95	17.93	19.9	81.9	1650	20.1	159.6	2406	4	3.5	17.4	84	71	93
3393	Karunganni	1935-36	7-10-36	16	10	4.4	9.5	0.4	13.6	24	200	8400	5.54	15.97	16.7	107.1	1631	15.8	207.2	2374	3	4.0	15.2	89	72	70				
3393	Karunganni	1935-36	8-10-36	20A		..	..	..	..	10	180	8900	5.95	17.93	19.7	80.2	1280	19.9	141.6	2418	3	3.8	17.2	88	72	72
3700	Karunganni	1936-37	15-7-37	16	10	6.8	16.3	0.2	24.0	12	198	8400	5.55	15.97	16.0	98.0	1578	16.2	186.4	2050	3	4.2	15.5	83	83	76				
3700	Karunganni	1936-37	14-7-37	20A		..	..	..	..	16	194	9200	5.78	17.93	20.2	72.8	1471	20.0	159.0	2720	3	5.2	17.2	84	83	78

* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

24.—A. R. KAMPALA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Special Appeal Committee on African Cottons in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.
1130	A. R. Kampala (K.L.A.)	1930-31
1498	A. R. Kampala (K.L.A.)	1931-32
1898	A. R. Kampala (K.L.A.)	1932-33
2464	A. R. Kampala (K.L.A.)	1933-34
2848	A. R. Kampala (B.K.T.)	1934-35
3396	A. R. Kampala (K.L.A.)	1935-36
3675	A. R. Kampala (K.L.A.)	1936-37

I.—SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). The 1930-31 sample was passed only once through the Crighton.
1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).
- (b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KAMPALA.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white; bright.	Creamy-white; brightish.	White; bright.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white; brightish.	Creamy-white to white; bright.
Cleanliness	Clean.	Very clean.	Clean.	Clean.	Clean.	Clean.	Very clean.
Feel	Good silky.	Good silky.	Good silky.	Smooth bodied.	Good smooth.	Good silky.	Good bodied.
Ginning and neppiness.	Trifle too knotted and nepped.	A little knotted.	Some what knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	Clean.	Clean.	Clean and silky.	Clean.	Clean.	Clean.	Good; clean.
Card Sliver	Fairly neppy.	A little neppy.	A little neppy.	A little cloudy.	Good even.	Good.	Good; free of nepps.
Weight of 10 flat strips.	19.3 grams.	19.2 grams.	21.5 grams.	25.2 grams.	14.2 grams.	12.7 grams.	14.0 grams.
Remarks .. ..	..	..	..	..	..	..	..

(b) Yarn :—

	KAMPALA.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.
Evenness	Even.	Even.	Very even.	Very even.	Very even.	Very even.	Even.
Neppiness	Some what neppy.	A trifle neppy.	Practically free of nep.	Fairly neppy.	Nep-free.	Some what neppy.	Free of nep.
Remarks .. ..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 24 on page. 72.

II.—REPORT OF THE SPECIAL APPEAL COMMITTEE FOR AFRICAN A. R. KAMPALA COTTON.

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		KAMPALA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	F. G. M. G. Broach No. 2	F. G. M. G. Broach No. 2, April/May 1933 deli-very.	F. G. M. G. Broach No. 2, July/August 1933 deli-very.	F. G. M. G. Broach H. C. No. 2, July/August 1934.	F. G. M. G. Broach Hedge Contract No. 2, April/May 1936 delivery.	F. C. M. G. Broach Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Broach Hedge Contract No. 2, July/Aug. delivery.
Class .. ..	.. ..	Superfine ..	Fully good to fine ..	Fine to superfine ..	Fine	Strict fine ..	Barely fine.	Fine.
Colour .. ..	.. ..	White ..	Bright creamy-white ..	White	Creamy-white ..	Dull white ..	Creamy-white.	Creamy-white.
Staple Length .. ..	.. ..	1 1/16" ..	1 1/16" ..	1 3/32" ..	1 3/32" ..	1 1/32" ..	1 1/32".	Full 1 1/8".
Staple Strength .. ..	.. ..	Good ..	Fair ..	Good ..	Good ..	Fair ..	Moderate	Normal.
Regularity .. ..	.. ..	Regular ..	Regular ..	Regular ..	Good ..	Regular ..	Not quite so regular as Busoga.	Regular.
Value above or below contract rate	.. ..	Rs 115 on ..	Rs. 112 on ..	Rs. 145 on ..	Rs. 139 on ..	Rs. 128 on ..	Rs. 136 on.	Rs. 192 on.
Basis .. ..	.. ..	Rs. 177 ..	F. G. M. G. Broach No. 2, April/May 1933 deli-very, Rs. 218.	F. G. M. G. Broach No. 2, July/August 1933 deli-very, Rs. 205.	F. G. M. G. Broach H. C. No. 2, July/August 1934 delivery, Rs. 223	F. G. M. G. Broach H. C. No. 2, April/May 1936 delivery, Rs. 194.	F. C. M. G. Broach H. C. No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Broach H. C. No. 2, July/August delivery, Rs. 224.
Date of Valuation .. ..	.. ..	18-7-31 ..	5-10-32 ..	7-8-33 ..	15-8-34 ..	20-8-35 ..	28-9-36.	16-10-37.
Remarks* .. ..	.. ..	..	Good sample ..	..	..	Staple weak ..	1/12 off A. R. Kampala Box.	Neppy.

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 24.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of sample (lbs.).	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE, ATONE, HEDDING, (°F.).	RELATIVE HUMIDITY, (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss, †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed ft. p. m.	Spindle Speed R. p. m.	Draft.	L.F.A.			STATISTIC.			Evenness Class.	Neps per yard.	Turns per inch Actual.	Spiraling Bloom.			Testing Bloom.
														Counts Actual.	Strength (lbs.)	Count-Product.	Counts Actual.	Work of Rupture (lb.-in.).	Count-Work Product.							
1130	Kampala	1930-31	29-7-31	20	10	4.1	10.3	0.4	14.2	10	105	9750	5.75	17.98	19.5	116.0	2242	19.3	201.8	3894	2	2.7	17.2	87	73	85
1130	Kampala	1930-31	29-7-31	30		..	..	..	..	0	150	9650	6.76	21.86	29.9	65.2	1049	29.8	107.2	3194	4	4.5	21.2	86	79	85
1130	Kampala	1930-31	30-7-31	40		..	..	..	..	8	138	9700	8.03	23.29	30.5	43.8	1730	39.5	80.2	3169	5	3.5	21.6	86	78	83
1498	Kampala	1931-32	10-10-32	20	10	3.0	10.4	0.3	14.1	0	106	9800	5.81	17.98	20.2	106.6	2153	20.2	103.4	3907	3	2.2	17.2	87	68	63
1498	Kampala	1931-32	10-10-32	30		..	..	..	..	0	162	9700	6.41	21.86	29.5	63.4	1870	29.2	108.2	3150	4	2.3	21.3	87	68	87
1498	Kampala	1931-32	11-10-32	40		..	..	..	..	18	139	9700	8.07	25.29	40.6	38.7	1507	30.3	74.2	2916	5	3.0	24.2	87	67	64
1898	Kampala	1932-33	6-9-33	20	10	3.4	10.0	0.4	14.1	47	195	9600	6.07	17.98	20.6	91.4	1883	20.6	178.8	3683	2	1.2	17.3	86	76	76
1898	Kampala	1932-33	9-9-33	30		..	..	..	..	3	160	9650	6.63	21.86	29.5	65.2	1923	20.8	111.6	3226	3	1.5	21.1	85	77	79
1899	Kampala	1932-33	9-9-33	40		..	..	..	..	15	139	9650	8.02	25.29	40.3	41.4	1663	39.0	81.0	3232	4	1.8	24.4	86	76	79
2464	Kampala	1933-34	31-8-34	20	10	5.0	12.6	0.1	17.1	5	205	10000	5.93	17.93	20.2	103.7	2196	20.2	195.4	3917	2	5.3	17.1	87	70	82
2464	Kampala	1933-34	31-8-34	30		..	..	..	..	0	168	10000	6.63	21.86	30.0	65.7	1971	20.9	109.1	3242	3	4.2	20.7	86	71	82
2464	Kampala	1933-34	31-8-34	40		..	..	..	..	2	144	9900	8.71	25.29	39.2	41.1	1729	38.2	82.6	3168	4	5.2	24.3	86	72	85
2464	Kampala	1933-34	30-8-34	50		..	..	..	..	4	131	10000	10.19	29.16	49.7	31.2	1551	49.3	52.9	2603	5	4.8	27.1	86	72	81
2848	Kampala	1934-35	19-9-35	30	10	3.1	9.8	0.3	12.9	7	160	9550	7.06	21.66	29.7	64.6	1019	30.1	109.0	3251	3	0.8	21.1	85	70	70
2848	Kampala	1934-35	11-9-35	40		..	..	..	..	16	138	9600	7.97	25.29	39.4	43.7	1722	30.2	98.0	3150	4	0.6	21.5	83	77	77
2848	Kampala	1934-35	13-9-35	50		..	..	..	..	14	126	9600	10.19	23.16	50.1	30.1	1509	50.0	53.9	2690	5	0.8	27.1	83	79	67
3396	Kampala	1935-36	9-10-36	30	10	3.4	9.3	0.2	11.6	0	173	10300	7.14	21.86	30.9	64.2	1084	31.1	101.2	3211	3	2.5	20.9	83	71	66
3396	Kampala	1935-36	12-10-36	40		..	..	..	..	0	149	10100	7.81	25.29	10.1	43.3	1738	40.4	80.2	3240	4	3.0	24.1	83	65	62
3396	Kampala	1935-36	13-10-36	50		..	..	..	..	5	138	10100	10.00	29.16	50.6	31.4	1586	52.1	62.0	3230	5	2.8	26.9	83	71	66
3672	Kampala	1936-37	26-6-37	20	10	2.8	8.1	0.3	11.0	3	150	10200	7.79	20.71	30.8	63.0	2094	20.6	105.0	3231	4	0.8	10.8	86	78	78
3672	Kampala	1936-37	25-6-37	40		..	..	..	..	7	134	10300	8.67	27.70	32.0	47.3	1845	30.0	84.0	3322	5	0.8	22.9	86	74	73
3672	Kampala	1936-37	25-6-37	50		..	..	..	..	12	134	10200	9.91	26.72	49.1	32.8	1620	50.7	85.0	3326	6	1.0	25.8	86	77	76

* Diameter of ring frame front roller: 1". Diameter of rings: 1-1/2".

† It is to be noted that the total loss for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

Table 25—SPINNING TEST RESULTS FOR BUSOGA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton	Season.	Date of Spinning	Counts Nominal.	Weight of Sample (lbs)	WASTE PERCENTAGES.				RING FRAME PARTICULARS *					YARN TEST RESULTS										TEMPERATURE ABOVE AMBIENT (°F)	RELATIVE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss	Total Loss †	Yarn Breakages per 100 spindles per hour	Front Roller speed R P M	Spindle speed R P M	Draft	Turns per inch	LFA			BALLASTIC			Evenness Class	Knots per yard	Turns per inch Actual.	Spinning Room			Testing Room
															Counts Actual	Strength (lbs)	Count-Strength Product	Counts Actual	Work of Rupture (inch lb)	Count-Work Product							
1131	Busoga	1930-31	20-7-31	20	8	5.3	12.3	0.6	17.4	20	195	9750	5.73	17.98	10.4	117.3	2270	19.8	109.8	3956	2	3.7	17.1	87	85		
1131	Busoga	1930-31	20-7-31	30		.	.	.	.	0	159	9850	6.67	21.86	29.3	69.1	2025	30.1	113.6	3119	4	5.5	20.9	86	86
1131	Busoga	1930-31	30-7-31	40		.	.	.	.	21	138	9700	8.80	25.28	39.0	14.1	1720	39.2	82.6	1238	5	5.5	24.3	86	83
1409	Busoga	1931-32	12-10-32	20	10	5.9	9.6	0.4	15.3	26	190	9700	5.95	17.09	20.7	109.0	2275	20.9	184.8	3253	2	2.2	17.1	89	67		
1409	Busoga	1931-32	11-10-32	30		.	.	.	.	10	163	9700	6.78	21.86	28.6	70.7	2022	28.4	118.2	3381	3	2.2	21.2	88	68
1409	Busoga	1931-32	11-10-32	40		.	.	.	.	5	139	9700	8.83	25.28	39.5	45.1	1781	70.7	70.8	3168	4	2.8	24.6	87	68
1897	Busoga	1932-33	5-0-33	20	10	7.5	10.0	0.5	17.1	88	190	9650	5.95	17.09	19.9	93.9	1709	20.1	183.8	3735	2	1.0	17.3	86	76		
1897	Busoga	1932-33	5-0-33	30		.	.	.	.	37	160	9600	6.47	21.86	29.1	64.8	1886	28.6	111.6	3192	3	1.8	21.2	87	78
1897	Busoga	1932-33	8-0-33	40		.	.	.	.	24	138	9650	8.71	25.28	78.1	37.0	1144	38.1	74.2	2827	5	1.5	24.1	86	70
2463	Busoga	1933-34	28-8-34	20	10	5.3	11.4	0.2	16.3	0	202	9800	5.81	17.08	20.3	111.3	2259	20.4	186.4	3501	2	4.8	17.1	86	74		
2463	Busoga	1933-34	28-8-34	30		.	.	.	.	3	166	9900	6.47	21.86	30.1	65.8	1934	30.1	101.6	3118	3	4.5	20.6	86	71
2463	Busoga	1933-34	20-8-34	40		.	.	.	.	7	144	9900	8.55	25.28	41.1	40.8	1677	41.0	75.4	7091	4	4.8	24.0	86	72
2463	Busoga	1933-34	30-8-34	50		.	.	.	.	2	131	9900	10.18	25.16	49.5	31.0	1534	50.3	51.0	2565	5	4.0	26.9	86	74
2847	Busoga	1934-35	18-0-35	30	10	3.8	11.7	0.4	15.4	17	164	9650	7.70	21.86	30.2	68.4	2066	30.4	114.8	1490	3	1.5	21.0	85	71		
2847	Busoga	1934-35	16-0-35	40		.	.	.	.	5	138	9550	8.09	25.28	39.2	46.4	1819	40.1	89.8	3704	4	4.2	24.4	83	76
2847	Busoga	1934-35	13-0-35	50		.	.	.	.	21	125	9600	10.00	28.16	10.9	32.8	1637	49.5	60.5	2914	4	3.8	27.1	81	70
3395	Busoga	1935-36	0-10-36	30	10	3.8	9.5	0.3	13.2	7	171	10350	7.14	21.86	30.6	71.8	2197	31.5	106.4	7352	4	3.5	20.9	87	69		
3395	Busoga	1935-36	10-10-36	40		.	.	.	.	0	148	10100	7.73	25.28	39.5	50.0	1975	40.9	83.2	3401	5	4.2	24.0	88	69
3395	Busoga	1935-36	14-10-36	50		.	.	.	.	6	136	10350	9.81	28.16	49.1	75.1	1740	50.8	66.6	7181	5	4.5	27.1	98	65
3674	Busoga	1936-37	23-6-37	30	10	4.8	8.2	0.4	13.0	23	180	10200	8.00	20.74	70.3	64.4	1951	30.9	103.2	7180	4	2.2	19.8	86	73		
3674	Busoga	1936-37	24-6-37	40		.	.	.	.	12	154	10300	7.73	23.70	39.0	10.1	1915	79.8	83.0	3303	4	2.2	21.0	87	79
3674	Busoga	1936-37	24-6-37	50		.	.	.	.	12	134	10200	9.81	26.75	50.0	35.1	1755	50.9	60.0	3779	5	2.5	25.9	86	78

• Diameter of ring frame front roller—7/8". Dia. meter of rings—1 5/8".

† It is to be noted that the total loss is the sum of the four losses given in the preceding columns.

* Diameter of ring frame front roller—7/8". Diameter of rings—1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

26—A. R. JINJA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Special Appeal Committee on African Cottons, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average Cotton of the commercial crop.

Sample No.,	Cotton.	Season.
1133	A. R. Jinja (K.I.G.)	1930-31
1500	A. R. Jinja (K.U.M.)	1931-32
1896	A. R. Jinja (A.R.A.)	1932-33
2462	A. R. Jinja (R.N.P.)	1933-34
2846	A. R. Jinja (S.R.I.)	1934-35
3394	A. R. Jinja (S.R.I.)	1935-36
3702	A. R. Jinja (. .)	1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times); the 1930-31 sample was passed only once through the Crighton.

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room*.—Upto 1933-34:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. I possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	JINJA.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white; bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; brightish.	Creamy-white to white.
Cleanliness	Fairly clean.	Fairly clean.	..	Clean.	Fairly clean.	Clean.	Very clean.
Feel	Soft and silky.	Good softish.	Soft silky.	Good silky.	Good silky.	Good silky.	Good silky.
Ginning and neppiness.	Too much knotted and nepped.	Some-what knotted.	Fairly well-ginned.	A little knotted.	A good deal knotted and nepped.	Well-ginned.	Well-ginned.
Seeds .. ..	..	..	..	..	..	..	..
Card Sliver	Clean.	Clean.	Silky, soft and clean.	Clean.	Clean.	Clean.	Good; clean.
Card Web	Too neppy.	A little neppy.	Good.	Cloudy and neppy.	Some-what neppy.	Good.	Good; nep-free.
Weight of 10 flat strips.	20.9 grams.	18.3 grams.	19.5 grams.	26.2 grams.	19.5 grams.	17.0 grams.	16.1 grams.
Remarks .. ..	..	..	..	..	..	..	..

(b) Yarn :—

	JINJA.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Fairly clean	Clean.	Clean.	Clean.	Fairly clean.	A trifle leafy.	Clean.
Evenness	Even.	Even.	Very even.	Even.	Even.	Fairly even.	Fairly even.
Neppiness	Neppy.	Some-what neppy.	Practically free of nep.	Fairly neppy.	Neppy.	Neppy.	Fairly free of nep.
Slubbiness .. ..	..	..	..	..	Occasionally slubby.	..	..
Remarks .. ..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 26 on page 78.

II.—REPORT OF THE SPECIAL APPEAL COMMITTEE ON AFRICAN COTTON, A. R. JINJA.

		JINJA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under		F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April/ May 1933 delv.	F. G. M. G. Broach No. 2, July/ August 1933 delv.	F. G. M. G. Broach H. C. No. 2, July/August 1934.	F. G. M. G. Hedgo con- tract No. 2, April/May 1936 delivery.	F. G. M. G. Broach Hedgo Con- tract No. 2, April/May 1937 delivery.	F. G. M. G. Broach Hedgo Con- tract No. 2, July/ August delivery.
Class	..	.. Fine	.. Good to fully good	.. Fully good to fine	.. Fine	.. Fully good to fine	.. Fully good	.. Superfine.
Colour	..	.. Creamy	.. Rather dull yellow stains.	.. Dull ; somewhat stained.	.. Creamy-white	.. Creamy-yellow	.. Dull and creamy	.. Creamy-white.
Staple Length	..	.. About 1"	.. 1"	.. 1 1/16"	.. 1 1/16"	.. 1 1/32"	.. 1 1/32"	.. 1 1/16".
Staple Strength	..	.. Fair	.. Fair	.. Good	.. Good	.. Fair	.. Good	.. Good.
Regularity	..	.. Fair	.. Irregular	.. Fair	.. Fair	.. Slightly irregular	.. Regular	.. Regular.
Value above or below contract rate	..	.. Rs. 100 on	.. Rs. 90 on	.. Rs. 132 on	.. Rs. 135 on	.. Rs. 150 on	.. Rs. 128 on	.. Rs. 185 on.
Basis	..	.. Rs. 130	.. F. G. M. G. Broach No. 2, April/ May 1933 Rs. 218.	.. F. G. M. G. Broach No. 2, July/ August 1933 Rs. 205.	.. F. G. M. G. Broach H. C. No. 2, July/August delivery, Rs. 223.	.. F. G. M. G. Broach H. C. No. 2, April/May 1936 deli- very, Rs. 194.	.. F. G. M. G. Broach H. C. No. 2, April/May, 1937 deli- very, Rs. 221.	.. F. G. M. G. Broach Hedgo Con- tract No. 2, July/Au- gust delivery, Rs. 208.
Date of Valuation	..	.. 24-7-31	.. 5-10-32	.. 7-8-33	.. 15-8-34	.. 27-8-35	.. 28-9-36	.. 5-7-37.
Remarks *	..	..	.. Poor sample	..	..	..	..	..
		* The difference between 'Pass' and 'Delivered' is as follows:—						
		Rs. 5/4 off A. R. Jinja Better than average quality.						

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7/-.

Table 26--SPINNING TEST RESULTS FOR JINJA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE, ROOM, (°F).	RELATIVE HUMIDITY, (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			BALANCO.			Evenness Class.	Knots per yard.	Turns per Inch Actual.	Spinning Room.	Testing Room.		
															Counts Actual.	Strength (lbs.).	Count- Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.).	Count- Strength Product.							
1133	JinJa	..	1930-31	30-7-31	20	10	5.3	11.2	0.3	16.2	6	196	9700	6.07	17.98	19.7	2153	20.1	185.0	3731	2	6.2	17.0	84	88		
1133	JinJa	..	1930-31	31-7-31	30	..	..	..	..	7	160	9700	6.89	21.86	28.8	64.3	1852	29.7	105.0	3118	4	7.0	20.7	85	70
1133	JinJa	..	1930-31	31-7-31	40	..	..	..	..	13	138	9050	9.26	25.28	40.4	39.2	1684	40.4	74.8	3022	5	7.0	24.0	81	78
1500	JinJa	..	1931-32	12-10-32	20	10	6.9	9.9	0.4	16.4	62	196	9700	6.07	17.98	19.7	2153	10.9	102.0	3821	3	5.5	17.6	89	68		
1500	JinJa	..	1931-32	11-10-32	30	..	..	..	..	14	163	9700	6.54	21.86	29.6	67.5	1993	29.1	110.2	3469	4	6.0	21.6	88	68
1500	JinJa	..	1931-32	12-10-33	40	..	..	..	..	10	138	9750	8.79	25.28	39.5	43.0	1098	38.1	77.4	2949	5	5.5	24.7	86	69
1896	JinJa	..	1932-33	5-0-33	20	10	5.9	9.8	0.4	15.5	88	196	9650	5.80	17.98	19.9	1797	20.5	175.4	3596	2	1.8	17.3	86	74		
1896	JinJa	..	1932-33	5-0-33	30	..	..	..	..	3	160	9690	6.38	21.86	29.3	69.1	1995	29.4	114.2	3357	3	2.0	21.1	87	74
1896	JinJa	..	1932-33	8-0-33	40	..	..	..	..	2	138	9650	8.87	25.28	38.9	40.7	1583	30.4	79.4	3128	4	1.5	24.3	86	75
2462	JinJa	..	1933-34	28-8-34	20	10	5.6	13.0	0.2	18.0	0	202	9800	6.06	17.98	20.3	2288	20.2	196.0	3959	2	5.0	17.2	86	70		
2462	JinJa	..	1933-34	28-8-34	30	..	..	..	..	0	166	9900	6.54	21.86	29.7	72.4	2150	29.6	116.4	3416	3	4.5	21.3	86	71
2462	JinJa	..	1933-34	29-8-34	40	..	..	..	..	10	144	9900	8.93	25.28	42.2	42.4	1789	41.7	77.6	3236	4	4.5	24.6	86	72
2462	JinJa	..	1933-34	30-8-34	50	..	..	..	..	2	131	9900	10.19	28.16	51.3	32.3	1637	50.7	63.2	2697	5	4.7	27.4	86	73
2846	JinJa	..	1934-35	18-9-35	30	10	5.0	11.6	0.4	16.3	10	163	9700	7.65	21.86	30.7	2057	30.5	107.4	3270	3	5.5	20.7	85	66		
2846	JinJa	..	1934-35	16-9-35	40	..	..	..	..	22	138	9600	7.94	25.28	39.7	47.5	1886	30.5	90.4	3571	4	5.0	24.2	84	73
2846	JinJa	..	1934-35	17-9-35	50	..	..	..	..	10	124	9600	10.20	28.16	51.5	31.9	1643	50.5	63.0	2976	5	5.2	26.6	84	69
3394	JinJa	..	1935-36	8-10-36	30	10	4.4	10.7	0.4	14.9	7	170	10300	7.35	21.86	31.0	2189	31.1	109.4	3402	4	4.0	21.2	88	70		
3394	JinJa	..	1935-36	10-10-36	40	..	..	..	..	7	148	10350	7.58	25.28	39.8	49.4	1966	39.3	86.4	3396	4	3.8	24.4	88	66
3394	JinJa	..	1935-36	12-10-36	50	..	..	..	..	5	138	10400	10.00	28.16	50.6	35.3	1786	50.8	66.4	3373	5	4.2	27.3	87	66
3702	JinJa	..	1936-37	17-7-37	30	10	4.2	9.7	0.4	13.9	13	183	10300	7.34	20.74	30.7	2278	30.9	108.2	3343	4	1.8	19.9	86	78		
3702	JinJa	..	1936-37	19-7-37	40	..	..	..	..	19	164	10300	7.73	23.79	38.7	63.8	2082	40.0	86.0	3440	5	2.0	23.0	86	77
3702	JinJa	..	1936-37	20-7-37	50	..	..	..	..	22	143	10300	10.00	29.75	50.4	36.2	1824	52.4	66.4	3470	6	1.2	25.9	86	79

* Diameter of ring frame front roller : 7/8". Diameter of rings : 1 1/4".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

1.—FARM WESTERNS COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
1776	Farm Westerns	Bellary	1932-33
2374	Farm Westerns	Bellary	1933-34
2748	Farm Westerns	Adoni	1934-35
3150	Farm Westerns	Adoni	1935-36
3507	Farm Westerns	Adoni	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

—	FARM WESTERNS.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.
Cleanliness	Leafy.	Very leafy (very fine leaf).	Leafy.	Fairly leafy..	A fair amount of leaf; a trifle stained.
Feel	Softish.	Good smooth.	Good.	Softish.	Good-bodied.
Ginning and neppiness	A trifle knotted.	Well-ginned.	Somewhat knotted.	A little knotted by ginning.	Well-ginned.
Seeds	A few seeds.	Too many (2.40%) seeds.	..	..	..
Card Sliver	Clean.	Leafy.	Clean.	Clean and soft.	Even; leafy.
Card Web	Even and nep-free.	Good.	Good.	Good.	A little neppy, leafy.
Weight of 10 flat strips.	17.6 grams.	21.5 grams.	17.8 grams.	13.8 grams.	14.0 grams.
Remarks .. ..	..	..	..	..	..

(b) Yarn :—

—	FARM WESTERNS.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Clean.	Leafy.	Clean.	Almost clean.	Leafy.
Evenness	Fairly even.	Fairly uneven.	Even.	Fairly even.	Fairly even.
Neppiness	A little neppy.	A little neppy.	Almost free of nep.	Practically free of nep.	Fairly free of nep.
Slubbiness .. ..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 1 on page 81.

60.	1930-37.
	Broach April/May.
	Fine.
	White.
	20/32 inch.
	Good.
	Fair.
	Ra. 20 on.
	Ra. 21.
	19-2-37.
	..

TECHNOLOGICAL REPORTS
ON
COTTONS SUPPLIED BY
THE BOMBAY MILLOWNERS' ASSOCIATION.

These samples are the first arrivals of the new crop of each season. In view of the fact that sometimes a mill using a particular style of cotton in one season does not use the same style in the following season, a certain amount of discontinuity has occurred in some of the varieties. However, so far as possible, efforts have been made to obtain, in each season, samples of the same varieties so that the results of tests in the successive seasons may be comparable. As regards the valuation of these samples, this was kindly done by the Grader (Major Ellis Jones) upto 1931-32, but in the following seasons the mills supplying these samples were requested to furnish their own valuation reports.

Contract valued under		Hedge O
Class .. ..	.. ..	Good M.
Colour .. ..	.. ..	White.
Staple Length ..	.. ..	7/8 inch.
Staple Strength	.. ..	Moderate
Regularity .. ..	.. ..	Slightly i
Value above or below contract rate	.. ..	R ^s . 20 or
Basis .. ..	.. ..	F. G. Dr
Date of Valuation	.. ..	15-5-33.
Remarks	.. ..	Inferior i

Table 1.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Samples, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.					YARN TEST RESULTS.								TEMPERATURE (°F.)	RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.	Draft.	Turns per Inch.	L.E.A.			BALISTO.			Evenness Class.	Neps per yard.				Turns per Inch Actual.	Spiraling Room.
															Counts Actual	Strength (lbs.)	Count-Strength Product.	Counts Actual	Work of Rupture (inch-lb.)	Count-Work Product.							
1776	Farm Westerns.	1932-33	18-5-33	20	10	11.2	10.0	0.6	20.6	62	196	9650	5.41	17.98	10.8	73.5	1155	20.1	116.0	2333	4	2.2	17.1	88	68	70	
1776	Farm Westerns.	1932-33	19-5-33	24		..	..	..	..	82	174	9400	6.32	10.73	23.7	51.5	1292	23.9	95.4	2380	4	2.8	18.9	87	66	68
2374	Farm Westerns.	1932-34	10-7-34	20	10	13.0	11.9	0.5	25.5	26	196	9000	6.07	17.98	10.9	69.4	1381	19.7	117.8	2321	4	1.5	17.0	87	72	76	
2374	Farm Westerns.	1933-34	11-7-34	24		..	..	..	..	50	170	9130	5.45	10.73	23.2	58.8	1364	23.5	96.0	2356	5	1.5	19.0	87	74	78
2374	Farm Westerns.	1933-34	10-7-34	30		..	..	..	..	56	154	9000	6.71	23.11	30.0	40.4	1212	29.5	78.4	2313	6	2.0	22.2	86	81	80
2748	Farm Westerns.	1934-35	19-6-35	20	10	11.2	9.0	0.5	20.2	21	107	9650	5.95	17.98	19.7	87.0	1712	10.8	141.8	2308	3	1.5	17.3	86	73	80	
2748	Farm Westerns.	1934-35	19-6-35	24		..	..	..	..	45	180	9000	5.32	10.73	23.6	68.1	1607	23.7	111.4	2711	4	1.5	19.1	86	73	79
2748	Farm Westerns.	1934-35	20-6-35	30		..	..	..	..	36	150	9500	6.71	23.11	29.3	52.4	1535	29.7	92.4	2744	5	1.2	22.4	85	75	77
3150	Farm Westerns.	1935-36	23-4-36	20	10	9.1	8.2	0.6	16.9	42	195	9600	5.05	17.98	20.2	65.7	1327	10.6	126.4	2477	4	0.8	17.4	88	67	70	
3150	Farm Westerns.	1935-36	22-4-36	24		..	..	..	..	73	170	9000	5.54	19.73	24.0	44.8	1116	24.5	104.0	2518	4	0.8	19.4	88	66	72
3150	Farm Westerns.	1935-36	21-4-36	30		..	..	..	..	66	140	8750	6.76	23.26	30.5	39.8	1214	30.0	78.4	2352	5	1.0	22.1	80	68	70
3507	Farm Westerns.	1936-37	25-2-27	20	10	10.2	8.5	0.4	18.2	10	190	9350	5.93	17.98	19.7	84.9	1673	19.7	121.0	2455	4	1.8	17.2	83	69	68	
3507	Farm Westerns.	1936-37	26-2-27	24		..	..	..	..	45	170	9200	5.36	19.73	24.3	61.6	1407	24.4	101.8	2484	5	1.8	19.0	84	68	68
3507	Farm Westerns.	1936-37	26-2-27	30		..	..	..	..	17	148	9350	6.67	23.26	30.1	48.1	1418	29.7	82.2	2441	6	1.5	22.1	83	68	68

* Diameter of ring frame front roller: 8". Diameter of rings: 1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

2.—BAILHONGAL COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, who have very kindly agreed to arrange for the supply each season of samples of the arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1042	Bailhongal	1930-31	12
1315	"	1931-32	12
1775	"	1932-33	11
2371	"	1933-34	11
2743	Bailhongal Compta	1934-35	11
3147	Bailhongal	1935-36	11
3550	"	1936-37	11

I. SPINNING TESTS.

1. Treatment:—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report:—

(a). *Cotton* :—

		Bailhongal.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
..	.. Creamy-white.	Dull white.	Dullish creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white.	
..	.. Fairly leafy.	Leafy ; almost free of stains.	Leafy—very fine leaf.	Very leafy.	Leafy (very fine leaf.)	Leafy.	Leafy.	
..	.. Good.	Soft.	Good.	Good.	Good.	Good.	Fair.	
nepiness.	Well-ginned.	Well-ginned.	Well-ginned.	Slightly knotted.	Well-ginned.	Well-ginned.	Well-ginned.	
..	.. 1% ginned and partly ginned.	..	..	..	Contains too many unginned seeds.	..	..
..	.. Clean.	A little pin trash present.	A trifle leafy.	Fairly leafy.	Clean.	Clean.	Good.	
..	.. Very good.	Even and nep-free.	Even and nep-free.	Good.	Even and nep-free.	Good.	Good.	
n flatstrips	11.2 grams.	15.0 grams; dirty.	15.2 grams.	19.5 grams.	15.6 grams.	12.8 grams.	13.2 grams.	
..	.. Fully pressed.	Fine s t r o n g staple.	Contains much very short fibre.	..	..	..	..

(b) *Yarn* :—

		Bailhongal.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
..	..	Clean.	A trifle leafy.	Clean.	Almost clean.	Almost clean.	Clean.	Almost clean.
..	..	Fairly even.	Even.	Fairly even.	Even in the two lower counts.	Fairly even.	Even.	Even.
..	..	A little neppy.	Fairly free of nep.	Free of nep.	Free of nep.	Practically free of nep.	Almost nep-free.	Fairly free of nep.
..	..	..	..	..	Slubby.	..	..	..
..

3. *Spinning Test Details and Results*.—See Table 2 on page 84.

II. GRADER'S REPORT* FOR BAILHONGAL COTTON.

BAILHONGAL.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under ..	..	Broach.	Broach/Kumbla.	Hedge Contract No. 5 southern.	Broach.	July/Aug. Broach.	Broach April/May.	Broach April/May.	
Class ..	..	Fully Good.	Fully Good.	Good M. G.	Fully Good.	Fully good to fine.	Fully good to fine.	Fully good to fine.	
Colour ..	..	Reddish.	Reddish Line.	Brownish.	Brownish.	Brownish white.	Brownish white.	Brownish white.	
Staple Length ..	..	7/8".	31/32".	7/8".	13/16".	3/4".	13/16".	7/8".	
Staple Strength ..	..	Fair.	Good.	Moderate.	Fair.	Fair.	Good.	Good.	
Regularity ..	..	Fair.	Fair.	Regular.	Fair.	Somewhat irregular.	Fair.	Good.	
Value above or below contract rate ..	..	Rs. 35 on.	Rs. 30 on.	Rs. 25 on.	Rs. 15 on.	Rs. 30 on.	Rs. 30 on.	Rs. 30 on.	
Basis ..	..	Rs. 100.	Rs. 170.	F. G. Broach April/May 1933.	Broach July/Aug. Rs. 203.	Rs. 232.	Rs. 203.	Rs. 247.	
Date of Valuation ..	..	11-5-31.	5-5-32.	15-5-33.	9-7-31.	3-7-35.	20-4-36.	23-3-37.	
Remarks ..	..	..	..	Inferior in staple to last year's crop.	..	..	..	..

* Reports for 1932-33, 1933-34 and 1935-36 onwards were made by the mill supplying the sample.

Table 2.—SPINNING TEST RESULTS FOR BAILHONGAL COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY. (%)				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per Inch.	LEA.			BUILDING.			Kevnass Class.			Keps per yard.	Turns per Inch Actual.		
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
1042	Bailhongal.	1930-31	4-5-31	20	10	12.2	8.2	0.3	10.7	0	188	9450	6.25	17.98	19.8	71.9	1483	10.8	114.1	2265	3	2.2	17.3	89	70	70	70
1042	Bailhongal.	1930-31	4-5-31	24		..	..	..	..	4	177	9500	5.05	10.73	23.1	61.0	1427	23.3	95.6	2227	4	1.5	19.0	91	65	70	65
1042	Bailhongal.	1930-31	8-5-31	30B		..	..	..	..	62	157	9900	7.58	23.11	29.2	44.0	1285	29.7	76.8	2291	5	2.0	22.1	91	67	65	65
1315	Bailhongal.	1931-32	20-4-32	20	10	13.3	9.2	0.7	21.8	78	194	9650	5.45	17.98	20.2	67.1	1361	20.6	104.1	2151	3	1.8	17.5	90	66	66	66
1315	Bailhongal.	1931-32	20-4-32	24		..	..	..	..	109	173	9450	6.54	10.73	21.6	45.8	1127	21.7	87.8	2169	4	2.2	19.0	90	62	63	63
1315	Bailhongal.	1931-32	30-4-32	30B		..	..	..	..	70	151	9600	6.76	23.11	28.9	44.3	1280	29.0	80.0	2320	5	2.5	22.2	89	66	70	66
1775	Bailhongal.	1932-33	18-5-33	20	10	15.6	10.2	0.6	24.7	119	196	9650	5.21	17.98	20.6	61.3	1225	20.6	107.6	2217	1	0.8	17.2	88	68	70	68
1775	Bailhongal.	1932-33	19-5-33	24		..	..	..	..	91	174	9400	6.02	10.73	23.8	51.2	1219	23.4	92.6	2167	1	1.0	18.9	87	66	68	66
2371	Bailhongal.	1933-34	9-7-34	20	10	13.8	11.2	0.4	23.8	36	209	9800	6.10	17.98	20.0	73.2	1464	20.0	110.8	2216	3	0.8	17.5	86	76	75	75
2371	Bailhongal.	1933-34	10-7-34	24		..	..	..	..	36	179	9600	5.47	10.73	23.1	64.1	1481	23.7	98.6	2337	4	1.0	19.3	87	74	78	74
2371	Bailhongal.	1933-34	10-7-34	30B		..	..	..	..	102	154	9600	6.70	23.11	30.6	43.2	1322	29.8	78.8	2318	5	0.8	22.2	80	81	80	80
2743	Bailhongal.	1934-35	10-6-35	20	10	12.8	8.7	0.3	20.7	10	194	9400	5.81	17.98	20.0	63.8	1870	20.1	135.8	2730	1	0.8	17.4	90	69	73	69
2743	Bailhongal.	1934-35	1-6-35	24		..	..	..	..	27	165	8750	5.43	10.73	23.6	70.7	1810	23.3	117.6	2740	4	1.0	19.0	90	69	77	69
2743	Bailhongal.	1934-35	12-6-35	30B		..	..	..	..	13	152	9050	6.76	23.11	28.6	61.8	1767	28.5	98.4	2804	5	0.8	22.6	90	68	82	68
3147	Bailhongal.	1935-36	17-4-36	20	10	10.9	7.1	0.4	17.6	47	192	9150	5.05	17.98	20.2	66.5	1313	19.5	119.4	2329	3	1.0	17.1	89	67	70	67
3147	Bailhongal.	1935-36	20-4-36	24		..	..	..	..	14	173	9500	6.11	10.73	23.6	50.8	1109	23.8	96.0	2285	4	1.2	18.7	89	68	72	68
3550	Bailhongal.	1936-37	6-4-37	20	10	13.2	8.6	0.6	21.2	10	190	9400	6.13	17.98	20.2	83.7	1691	20.0	123.8	2476	3	1.2	17.1	85	67	68	67
3550	Bailhongal.	1936-37	6-4-37	24		..	..	..	..	23	174	9350	5.21	10.73	23.3	71.0	1654	23.1	107.6	2466	4	1.0	18.8	86	65	68	65
3550	Bailhongal.	1936-37	5-4-37	30A		..	..	..	..	36	158	9500	6.28	21.86	29.4	49.2	1440	29.9	85.6	2559	5	1.0	20.4	85	67	68	67

* Diameter of ring frame front roller—1". Diameter of ring—11".

† It is to be noted that the total loss is for a small sample spun under mill conditions it would be less than shown here.

3.—BROACH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals* of the new crop.

Sample No.	Cotton.	Season.
1007	Broach (Salar)	1930-31
1314	" (Salar)	1931-32
1707	" (Sadhli)	1932-33
2372	" (Sadhli)	1933-34
2744	" (Broach)	1934-35
3148	" (Jambusar)	1935-36
3508	" (Palej)	1936-37

NOTE—The mill supplying the sample explains that Sadhli is a station in the Broach District and Salar is merely the type name given by a seller to Sadhli or similar cotton.

*The 1935-36 sample does not represent the early arrivals of Broach but represents the average quality of the Broach cotton.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*—Up to 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Up to 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report.

(a) Cotton :—

	Broach.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white.	Creamy-white.	White; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White.
Cleanliness	Very bright, clean.	Clean, almost free of leaf.	Almost clean.	Fairly clean.	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained.
Feel	Good silky.	Fairly good.	Good-bodied.	Good.	Good smooth.	Smooth-bodied.	Good soft.
Ginning and Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	..	..	..	..	..	..	..
Card Silver	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.
Card Web	First class.	Even and nep-free.	Even and nep-free.	Good.	Good.	Even and nep-free.	Free of neps.
Weight of 10 flatstrips.	12.6 grams.	16.2 grams.	15.2 grams.	17.5 grams.	21.6 grams.	17.5 grams.	15.8 grams.
Remarks	Fully pressed.	Medium fine staple, regular and fairly strong.	..	..	..	..	..

(b) Yarn :—

	Broach.						
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.	Clean.	Clean.	A little leafy.	A little leafy.
Evenness	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Somewhat uneven.	Fairly even.	Fairly even.
Neppiness	Free of nep.	Almost free of nep.	Free of nep.	Free of nep.	A trifle neppy.	Free of nep.	Almost free of nep.
Slubbiness .. ..	..	..	Shows an occasional snib.	..	Slightly slubby.	..	..
Remarks .. ..	..	..	..	..	..	..	..

3. Spinning Test Details and Results.—See Table 3 on page 87.

Table 3.—SPINNING TEST RESULTS FOR BROACH COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Sample No.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).					
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller speed R. P. M.	Spindles speed R. P. M.	Draft.	Turns per inch.	LEA.			BALISTIC.								
														Counts Actual.	Strength (lbs).	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)			Count-Work Product.				
1007	1930-31	17-3-31	10A	10	7.0	8.7	0.6	15.5	7	184	8000	5.75	15.97	16.6	69.0	979	16.6	121.2	2012	3	1.2	15.5	81	67	69
1007	1930-31	17-3-31	20		..	..	..	..	50	180	10000	0.25	20.23	20.1	68.1	1108	20.5	101.4	2140	4	1.7	19.0	82	60	68
1311	1931-32	20-4-32	12	10	5.3	8.0	0.5	14.2	7	208	8000	4.30	13.02	12.0	65.3	1144	12.2	207.2	2328	4	1.5	13.4	88	63	72
1314	1931-32	28-4-32	10A		..	..	..	..	88	181	8100	5.00	15.07	16.1	67.0	932	16.2	130.0	2110	5	1.8	15.3	90	68	60
1314	1931-32	20-4-32	10B		..	..	..	..	02	100	0000	5.00	16.07	16.0	69.8	1117	15.3	154.4	2362	4	1.5	16.4	91	67	68
1707	1932-33	22-3-33	12	10	8.1	9.0	0.5	17.4	36	204	7000	5.25	13.92	12.4	80.3	906	12.4	103.2	2308	4	0.5	13.4	84	70	70
1707	1932-33	22-3-33	10A		..	..	..	..	121	175	7700	5.54	15.07	10.3	52.1	840	10.0	140.4	2342	5	0.5	15.5	85	71	71
1707	1932-33	22-3-32	10B		..	..	..	..	133	186	8700	5.53	16.97	16.1	65.0	1061	16.1	148.0	2383	5	0.5	16.4	86	70	70
2372	1933-34	7-7-34	14A	10	6.9	9.7	0.4	16.2	51	200	8200	5.57	14.08	14.1	85.6	1207	14.2	170.0	2532	4	0.5	14.0	87	71	78
2372	1933-34	9-7-34	10A		..	..	..	..	48	188	8200	5.57	15.97	10.2	67.3	1090	16.1	137.1	2253	4	0.8	15.5	85	78	78
2372	1933-34	9-7-34	10B		..	..	..	..	36	198	8850	5.57	16.97	16.2	78.0	1273	16.5	139.8	2307	4	0.8	16.3	80	70	78
2711	1934-35	12-6-35	11A	10	7.2	10.8	0.4	17.5	29	188	7000	5.53	14.08	14.2	76.8	1001	13.9	187.0	2808	4	1.8	14.7	90	68	76
2744	1934-35	13-6-35	10A		..	..	..	..	55	177	7000	5.43	15.97	16.0	70.0	1120	15.7	101.8	2640	5	2.0	15.4	91	67	82
2744	1934-35	13-6-35	10B		..	..	..	..	12	180	8200	5.54	16.97	15.7	83.0	1303	15.7	165.2	2504	5	1.5	16.4	90	68	82
3148	1935-36	24-4-36	10	10	6.0	9.8	0.4	16.3	0	198	0950	5.30	12.63	10.5	85.7	900	10.2	238.8	2436	4	0.5	12.1	88	66	70
3148	1935-36	23-4-36	14A		..	..	..	..	87	180	7450	5.43	14.08	14.2	55.1	782	14.1	181.0	2561	4	0.5	14.2	89	67	70
3148	1935-36	24-4-36	14B		..	..	..	..	58	200	8800	5.43	15.07	14.0	73.0	1035	14.3	175.2	2505	4	0.8	15.4	80	69	68
3508	1936-37	2-3-37	12	10	5.9	9.0	0.3	14.6	7	206	7800	4.22	13.02	12.1	106.0	1203	11.8	211.8	2553	3	0.8	13.5	83	67	69
3508	1936-37	20-2-37	14A		..	..	..	..	15	186	7700	5.55	14.08	13.9	80.2	1210	13.0	197.8	2690	4	0.8	14.7	83	67	68
3508	1936-37	20-2-37	10A		..	..	..	..	18	174	7700	5.74	15.97	16.3	61.2	1016	16.4	139.8	2293	4	1.0	15.2	84	68	67
3508	1936-37	27-2-37	10B		..	..	..	..	42	170	8000	5.61	16.97	16.4	78.0	1270	16.3	153.2	2497	4	1.2	16.3	84	67	67

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

4.—KARUNGANNI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1063	Karunganni	1930-31
2413	Karunganni	1933-34
2746	Karunganni (Cambodia Dt.)	1934-35
3271	Karunganni	1935-36

1. Treatment :—

(a) *Blow-room*—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 and 1935-36 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KARUNGANNI			
	1930-31.	1933-34.	1934-35.	1935-36.
Colour	Creamy-white; fairly bright.	White to creamy-white; bright.	White; bright.	White to creamy-white; brightish.
Cleanliness	Fairly clean.	Fairly clean.	Fairly clean.	A little leafy.
Feel	Full-bodied.	Good smooth.	Good silky.	Good smooth.
Ginning and neppiness ..	A fair amount of knot and nep.	Well-ginned.	Well-ginned.	A little mottled.
Seeds	Some cut seed.	..	Few crushed seeds.	..
Card sliver	Almost clean.	Fairly clean.	Clean; soft.	Almost clean.
Card web	Somewhat neppy and cloudy.	..	A little neppy.	A trifle neppy.
Weight of 10 flat strips ..	16.4 grams.	23.0 grams.	26.0 grams.	18.0 grams.
Remarks	Fully-pressed.	..	..	..

(b) Yarn :—

	KARUNGANNI			
	1930-31.	1933-34.	1934-35.	1935-36.
Cleanliness	Fairly clean.	Almost clean.	Clean.	Little leafy.
Evenness	Fairly even.	Fairly even.	Even.	Fairly even.
Neppiness	Somewhat neppy.	A little neppy.	Neppy.	Somewhat neppy.
Slubbiness .. ..	..	A little slubby.	..	Occasionally slubby.
Remarks .. ..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 4 on page 90.

II. GRADER'S REPORT* FOR KARUNGANNI COTTON.

—		1930-31.	1933-34.	1934-35.	1935-36.
Contract valued under	.. ..	Broach.	Broach.	July/August Broach.	Broach July/August.
Class	.. ..	Fine.	Fine.	Superfine.	Fine.
Colour	.. ..	White.	White.	Bright white.	White.
Staple Length	.. ..	5/8—1 inch.	15/16 inch.	7/8 inch.	13/16 inch.
Staple Strength	.. ..	Irregular.	Good.	Fair.	Fair.
Regularity	.. ..	Very irregular.	Good.	Slightly irregular.	Slightly irregular.
Value above or below contract rate	.. ..	Rs. 50 on.	Rs. 55 on Broach.	Rs. 55 on.	Rs. 30 on.
Basis	.. ..	Rs. 175.	Rs. 203 July-Aug. Broach.	Rs. 232.	Rs. 220.
Date of Valuation	.. ..	30-5-31.	9-7-34.	3-7-35.	1-7-36.
Remarks	.. ..	Valued on name only.	..	Somewhat soft.	..

* Grader's Report for 1933-34 and 1935-36 is compiled by the mill supplying the sample.

Table 4.—SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS. *				YARN TEST RESULTS.								TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			BALISTIC.			Livewool Class.				Neeps per yard.	Turns per Inch Actual.	Spinning Room.	Spinning Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
1063	Karunganni.	1930-31	28-5-31	20	10	7.2	0.2	0.6	16.2	35	187	9400	0.38	17.98	19.8	60.1	1190	19.0	110.8	2205	4	5.2	17.2	90	68	69	
1063	Karunganni.	1930-31	28-5-31	24		..	..	..	..	44	174	9375	0.38	19.73	23.1	50.8	1173	23.7	94.8	2247	5	5.5	19.0	90	68	71
2413	Karunganni.	1932-34	1-8-34	20	10	6.9	11.7	0.4	18.1	42	186	9000	0.19	17.98	20.1	67.2	1361	20.2	116.6	2355	4	2.2	16.7	83	81	86	
2413	Karunganni.	1932-34	1-8-34	24		..	..	..	..	77	168	8950	0.41	19.73	23.7	52.4	1242	23.5	100.2	2355	4	2.5	18.6	82	82	88
2746	Karunganni.	1934-35	17-6-35	20	10	7.8	13.0	0.3	20.6	16	194	9500	0.07	17.98	20.0	86.0	1720	10.9	130.8	2782	4	4.8	17.5	89	66	82	
2746	Karunganni.	1934-35	17-6-35	24		..	..	..	..	23	170	9500	0.07	19.73	22.9	73.6	1685	23.0	119.4	2746	4	5.5	19.4	90	67	80
3271	Karunganni.	1935-36	13-7-36	20	10	8.8	0.6	0.3	17.7	0	193	9700	5.08	17.98	20.2	74.4	1503	10.7	127.4	2510	4	4.0	17.4	87	70	72	
3271	Karunganni.	1935-36	16-7-36	24		..	..	..	..	18	174	9700	5.76	19.73	24.1	57.6	1388	21.1	101.0	2500	4	3.8	19.1	88	73	74
3271	Karunganni.	1935-36	16-7-36	30	c	..	..	..	..	26	135	9500	6.97	21.86	29.7	42.0	1247	29.9	86.0	2542	5	3.2	21.1	88	73	72

* Diameter of ring frame front roller— $\frac{1}{4}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

5.—NANDYAL COTTON.

These samples have been tested by arrangement with the Mill-owners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs).
1069	Nandyal	1930-31	11
2751	„ (Northern Cambodia).	1934-35	10

I. SPINNING TESTS.

1. *Treatment*.—The 1930-31 sample was passed through the Porcupine, Crighton (twice), Hopper, Scutcher (3 times), Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving in Ring Frame No. 1. The 1934-35 sample was passed through the Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times) in the blow-room and was spun on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement; otherwise its treatment was the same as for the cotton of the other season.

2. *Spinning Master's Report* :—

(a) *Cotton* :—

	NANDYAL.	
	1930-31.	1934-35.
Colour	Creamy-white.	White to creamy-white.
Cleanliness	Leafy (very fine leaf).	Slightly stained ; Leafy.
Feel	Good ; soft.	Good.
Ginning and Neppiness	Well-ginned ; a little neppy.	Well-ginned.
Seeds .. .. .	..	..
Card Sliver	Clean.	Clean ; soft.
Card Web	Trifle neppy.	Slightly neppy.
Weight of ten flat strips	15.8 grams.	25.8 grams.
Remarks	Staple regular in length and of good strength.	..

(a) *Yarn* :—

	NANDYAL.	
	1930-31.	1934-35.
Cleanliness	Clean.	Clean.
Evenness	Fairly even.	Fairly even.
Neppiness	A little too neppy.	A little neppy (fine neps).
Slubbiness .. .. .	..	A trifle slubby.

3. *Spinning Test Details and Results* :—See Table 5 on page 92.

II.—GRADER'S REPORT* FOR NANDYAL COTTON.

NANDYAL.		1930-31.	1934-35.
Contract valued under	..	Broach.	Broach July/Aug.
Class ..	..	Barely fine.	Fine.
Colour ..	..	White.	Creamy.
Staple Length	..	15/16 inch.	7/8 inch.
Staple Strength	..	Good.	Good.
Regularity ..	..	Fair.	Fairly regular.
Value above or below contract rate	..	Rs. 45 on.	Rs. 60/on.
Basis ..	..	Rs. 160.	Broach July/Aug.
Date of Valuation	..	10-6-31.	26-6-35.
Remarks ..	..	..	..

* Report for 1934-35 is supplied by the mill supplying the sample.

Table 5.—SPINNING TEST RESULTS FOR NANDYAL COTTON.

Table 5.—SPINNING TEST RESULTS FOR NANDYAL COTTON.																										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE ° F.		RELATIVE HUMIDITY. %		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Break-ages per 100 spindles per hour.	Front Roller R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	L&A.			BALLISTIC.			Knots per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.		
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lbs.)	Count-Work Product.					Evenness Class.	
1069	Nandyal	1930-31	4-6-31	24	10	10.5	9.2	0.0	9.1	18	180	9850	7.14	10.73	24.1	65.7	1583	24.5	110.8	2715	4	5.5	19.0	92	67	69
1069	Nandyal	1930-31	4-6-31	30	..	..	..	..	..	72	156	9500	7.29	21.86	31.0	42.3	1311	31.9	83.4	2660	5	5.0	21.1	92	71	68
1069	Nandyal	1930-31	4-6-31	24	..	..	..	..	..	40	142	9000	7.81	23.26	33.9	42.7	1405	33.8	80.0	2704	5½	5.7	22.5	92	68	67
2751	Nandyal	1934-35	24-6-35	20	10	8.0	12.9	0.5	21.0	5	180	8800	5.93	17.93	19.0	70.3	1300	20.0	118.6	2372	4	2.5	16.9	84	80	74
2751	Nandyal	1934-35	22-6-35	24A	..	..	..	..	..	27	156	8050	6.13	19.73	23.7	52.1	1235	23.8	100.6	2394	4	2.2	18.0	88	73	74
2751	Nandyal	1934-35	22-6-35	24B	..	..	..	..	..	50	186	10500	6.25	20.74	23.8	53.5	1392	23.8	101.8	2423	5	2.5	19.5	88	73	72

* Diameter of ring frame front roller—7/8". Diameter of ring—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions, it would be less than shown here.

6.—NORTHERN CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1064	Northern Cambodia (Kurnool)	1930-31
2747	Northern Cambodia (Kurnool)	1934-35
3272	Northern Cambodia	1935-36
3685	Northern Cambodia	1936-37

I.—SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*—1930-31 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*—1930-31 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band-drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white to creamy.	Creamy-white.	White to creamy-white.	Creamy-white to creamy
Cleanliness	Shows an occasional stain ; fairly clean.	Occasionally stained.	Fairly clean.	Leafy.
Feel	Full bodied.	Somewhat softish.	Smooth and softish.	Soft.
Ginning and neppiness ..	Somewhat knotted and nepped.	Fairly well-ginned.	Fairly well-ginned.	..
Seeds	1% ginned and unginned seeds.	..	..	A few ginned.
Card sliver	Clean.	Clean.	Clean and soft.	A little leafy.
Card web	Fairly good.	Good.	A little neppy.	Very neppy.
Weight of 10 flat strips ..	15.7 grams.	20.4 grams.	21.6 grams.	31.8 grams.
Remarks .. ..	..	..	..	..

(b) Yarn :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Cleanliness	Fairly clean.	Almost clean.	Almost clean.	Fairly clean.
Evenness	Fairly even.	Fairly even.	Fairly even.	A little uneven.
Neppiness	Somewhat neppy.	Fairly neppy.	Neppy.	Very neppy.
Slubbiness .. ..	..	Somewhat slubby.	A little slubby.	..

3. Spinning Test Details and Results :—See Table 6 on page 95.

II.—GRADER'S REPORT* FOR NORTHERN CAMBODIA.

NORTHERN CAMBODIA.									
1930-31.				1934-35.			1935-36.		
Contract valued under	..	..	..	Broach.	July/Aug. Broach.	Broach July/Aug.	July/Aug. Broach.	July/Aug. Broach.	1936-37.
Glass ..	..	..	..	Fine.	Fine.	F. G. to Fine.	Fully good.	Fully good.	
Colour ..	..	..	..	Slight-cream.	Brownish white; somewhat stained.	Creamy-white.	Brownish white.	Brownish white.	
Staple Length	..	..	..	7/8 inch.	Full 7/8 inch.	31/32 inch.	7/8 inch.	7/8 inch.	
Staple Strength	..	..	..	Fair.	Very good.	Fair.	Weak.	Weak.	
Regularity ..	..	..	..	Poor.	Regular.	Fairly regular.	Irregular.	Irregular.	
Value above or below contract rate	..	..	..	Ra. 35 on.	Ra. 85 on.	Ra. 35 on.	Ra. 10 on.	Ra. 10 on.	
Basis ..	..	..	..	Ra. 175.	Ra. 232.	Ra. 220.	Ra. 225.	Ra. 225.	
Date of Valuation	..	..	..	30-5-31.	3-7-35.	1-7-36.	28-8-37.	28-8-37.	
Remarks ..	..	..	..	..	..	..	..	..

* Report for 1935-36 and 1936-37 is made up by the mill supplying the sample.

Table 6.—SPINNING TEST RESULTS FOR NORTHERN CAMBODIA.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample Lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE. (°F.)	RELATIVE HUMIDITY. (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per inch.	L.S.A.			BALISTIC.			Revenues Class.	Keps per yard.	Turns per inch. Actual.	Spinning Room.	Spinning Room.			Testing Room.
															Counts Actual.	Strength lbs.	Count Strength Product.	Counts Actual.	Work of Rupture (inch-lbs.)	Count Work Product.								
1064	Northern Cambodia ..	1930-31	28-5-31	20	10	8.3	8.7	0.4	16.6	26	187	9,400	6.25	17.98	20.1	65.9	1325	20.4	112.4	2293	4	6.2	17.4	90	68	70		
1064	Northern Cambodia ..	1930-31	28-5-31	24		..	..	..	..	20	174	9,375	6.25	19.73	23.1	57.0	1317	24.2	98.0	2372	5	4.0	18.9	90	68	70
2747	Northern Cambodia ..	1934-35	18-6-35	20	10	7.3	10.6	0.4	17.5	10	195	9,550	6.07	17.98	19.9	83.2	1056	19.8	139.2	2756	4	3.2	17.3	87	75	73		
2747	Northern Cambodia ..	1934-35	18-6-35	24		..	..	..	..	18	161	9,800	6.55	19.73	23.7	65.6	1555	23.6	115.8	2733	4	4.2	19.1	80	70	76
2747	Northern Cambodia ..	1934-35	18-6-35	30		..	..	..	..	17	160	9,600	6.94	21.86	29.1	49.0	1420	29.5	86.6	2555	5	3.2	21.2	88	71	70
3272	Northern Cambodia ..	1935-36	13-7-36	20	10	7.8	11.5	0.3	18.7	10	193	9,700	6.10	17.98	20.8	82.3	1671	20.2	124.6	2517	4	4.0	17.1	80	73	72		
3272	Northern Cambodia ..	1935-36	17-7-36	24		..	..	..	..	0	178	9,700	5.76	19.73	23.6	65.7	1561	23.8	103.4	2461	4	5.5	18.9	88	73	72
3272	Northern Cambodia ..	1935-36	17-7-36	30		..	..	..	..	13	156	9,700	7.11	21.86	30.3	47.2	1430	30.9	82.6	2552	5	5.0	20.9	88	77	75
3085	Northern Cambodia ..	1936-37	5-7-37	20	10	12.0	18.4	0.6	28.5	10	194	9,400	6.25	17.98	19.6	85.0	1627	19.8	130.0	2574	4	10.5	17.3	87	75	80		
3085	Northern Cambodia ..	1936-37	6-7-37	24		..	..	..	..	32	177	9,300	5.43	19.73	24.2	60.5	1464	24.5	102.0	2499	5	10.8	19.1	86	76	79
3085	Northern Cambodia ..	1936-37	6-7-37	30		..	..	..	..	17	144	8,500	6.58	21.86	28.8	49.5	1426	28.7	88.2	2531	6	12.2	21.0	86	78	85

* Diameter of ring frame front roller : 7/8". Diameter of rings : 1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

7.—BENGALS COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
912	Bengals.	Kasgunj	.. 1930-31	2667	Bengals.	Hansi	.. 1934-35
1602	"	Kosi	.. 1932-33	3030	"	Hansi	.. 1935-36
2106	"	Kosi	.. 1933-34	3438	"	Hansi	.. 1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times); 1930-31 cotton was passed only once through the Crighton. 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. From 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :

	BENGALS.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white.	Creamy-white ..	Creamy-white to creamy.	Creamy-white ..	White to creamy-white.	White to creamy-white.
Cleanliness	Fair; stained ..	Leafy; stained ..	Badly stained and leafy.	Badly stained; leafy.	Leafy; a little stained.	Leafy; slightly dusty; a little stained.
Feel	Dull; rough ..	Roughish ..	Fairly good ..	Softish.	Rough.	Rough.
Ginning and neppiness ..	Well-ginned (roller).	Somewhat knotted.	..	Fairly well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	..	2.2% unginned ..	Contains a few seeds.	..	..	..
Card sliver .. ..	..	Almost clean ..	Clean ..	Fairly clean ..	Almost clean.	A little leafy.
Card web .. ..	..	Good ..	Good ..	Fairly good after easing the tension.	Good.	Good, almost free from neps.
Weight of 10 flat strips ..	..	22.5 grams.	19.9 grams.	26.3 grams.	21.0 grams.	18.4 grams.
Remarks	Fully pressed; a lot of fly in the Blow-room.	Well-watered; breakage excessive in Card.	..	A poor sample ..	..	..

(b) Yarn :

	BENGALS.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Clean ..	Clean ..	Little leafy ..	Fairly clean.	Clean.	Clean and free of leaf.
Evenness	Very uneven ..	Fairly even ..	Fairly even in the lower count only.	Fairly uneven.	Uneven.	..
Neppiness	Free of nep ..	Almost nep-free ..	Free of nep ..	Free of nep.	Nep-free.	..
Slubbiness	Slubby ..	..	..	Slubby.	Somewhat slubby.	Rather slubby.

3. *Spinning Test Details and Results* :—See Table 7 on page 98.

II. GRADER'S REPORT* FOR BENGALS COTTON.

		BENGALS.					
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	..	Bengals.	Bengals.	Bengals.	Bengals.	Bengals.	Bengals.
Class	..	Fine.	Fully good.	Fully good.	Fully good.	Fully good M. G	Fully good M. G
Colour	..	White.	White.	Dull.	White.	Fairly white.	Fairly white.
Staple Length	..	5/8 inch.	11/16 inch.	3/8 inch.	3/8 inch.	1/2 inch.	9/16 inch.
Staple Strength	..	Good.	Fair.	Rather poor.	Fair.	Good.	Good.
Regularity	..	Good.	Fair.	Good.	Fair.	Good.	Fair.
Value above or below contract rate	..	Rs. 14 on.	Rs. 10 on.	Rs. 7 off.	Rs. 2 on.	Rs. 10 on.	Rs. 7 on.
Basis	..	Rs. 130.	Rs. 108.	Rs. 143.	Rs. 151.	Rs. 148.	Rs. 104.
Date of Valuation	..	20-11-30.	..	22-1-31.	8-2-35.	4-1-36.	17-12-36.
Remarks	..	..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 7.—SPINNING TEST RESULTS FOR BENGALS COTTON.

Table 7.—SPINNING TEST RESULTS FOR BENGALS																													
Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample. (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)						
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed H. P. M.	Spindle Speed H. P. M.	Draft.	Turns per Inch.	IMA.			BALLISTIC.			Revolutions Class.				Neps per yard.	Turns per Inch Actual	Spinning Room.	Spinning Room.	Testing Room.
															Counts Actual.	Strength lbs.	Count-Strength	Count-Product.	Work of Rupture (inch-lb.)	Count-Work Product.									
912	Bengals	1930-31	26-11-30	6A	10	6.4	10.3	0.7	16.7	189	170	..	4.06	9.87	6.0	46.2	277	250.6	1559	6	1.7	9.4	82	67	64				
912	Bengals	1930-31	25-11-30	8A		..	..	..	..	347	154	..	5.21	11.33	8.2	18.7	153	143.6	1163	7	1.5	10.7	83	67	69
1602	Bengals	1932-33	5-1-33	6A	10	13.8	15.2	0.6	27.3	123	175	4700	4.78	9.87	6.4	47.0	301	252.4	1500	4	1.0	9.1	79	70	74				
1602	Bengals	1932-33	5-1-33	6C		..	..	..	..	205	183	5600	4.78	11.08	6.0	109.0	654	299.6	1887	4	1.2	10.6	79	69	72
2106	Bengals	1933-34	29-1-34	6A	10	12.5	14.3	0.2	25.2	0	180	4800	4.80	9.87	5.9	94.8	559	316.0	2041	4	0.8	9.5	82	67	74				
2106	Bengals	1933-34	29-1-34	6C		..	..	..	..	0	180	5800	4.80	11.08	5.9	147.4	870	385.2	2191	5	1.0	10.7	80	68	69
2106	Bengals	1933-34	29-1-34	8B		..	..	..	..	87	185	6400	6.25	12.63	8.3	73.2	608	202.4	1701	6	0.8	12.2	80	69	74
2667	Bengals	1934-35	20-2-35	6B	10	14.1	14.8	0.6	27.3	191	183	5300	5.00	10.44	6.2	42.7	265	203.6	1295	4	1.0	10.2	79	68	70				
2667	Bengals	1934-35	20-2-35	6C		..	..	..	..	136	193	5900	5.00	11.08	6.4	56.2	300	246.4	1528	4	1.2	10.8	80	67	68
2667	Bengals	1934-35	20-2-35	8B		..	..	..	..	234	152	5350	5.00	12.63	8.2	35.1	288	176.0	1443	5	1.2	12.3	80	66	72
3030	Bengals	1935-36	13-1-36	6B	10	13.5	15.0	0.3	26.7	136	176	5300	5.10	10.44	6.4	38.1	244	208.0	1260	5	0.2	10.1	77	66	66				
3030	Bengals	1935-36	13-1-36	6C		..	..	..	..	122	192	6000	5.10	11.08	6.2	60.8	377	269.2	1642	5	0.2	10.6	79	67	64
3030	Bengals	1935-36	13-1-36	8B		..	..	..	..	240	152	5300	5.00	12.63	8.1	34.8	282	160.4	1347	5	0.5	12.1	79	66	66
3438	Bengals	1936-37	21-12-36	6B	9	12.8	15.3	0.4	26.4	55	182	5200	5.10	10.44	6.3	57.5	362	235.6	1461	5	0	9.9	82	61	69				
3438	Bengals	1936-37	21-12-36	6C		..	..	..	..	14	183	5500	5.10	11.08	6.4	79.3	508	250.6	1601	5	0.5	10.6	82	61	72
3438	Bengals	1936-37	21-12-36	8B		..	..	..	..	44	146	5000	5.00	12.63	8.2	50.0	410	199.2	1614	5	0.5	12.0	79	62	70

* Diameter of ring frame roller: 7/8". Diameter of rings: 1 5/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

8.—KHANDESH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
965	Khandesh	Yawal	.. 1930-31	1603	Khandesh	Saudha	.. 1932-33
1247	"	"	.. 1931-32	2105	"	"	.. 1933-34
967	"	Ranala	.. 1930-31	2663	"	"	.. 1934-35
1249	"	"	.. 1931-32	3031	"	"	.. 1935-36
968	"	Nimbora	.. 1930-31	3439	"	"	.. 1936-37
1250	"	"	.. 1931-32				

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—Upto 1934-35 inclusive: Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 inclusive: Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KHANDESH.										
	Yawal.		Ranala.		Nimbora.		Saudha.				
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white.	Creamy-white.	White to creamy-white; slightly bright.	Creamy-white.	White to creamy-white.	White to creamy-white.	Brightish creamy-white.	White to creamy-white; bright.	Dullish creamy-white.	White to creamy-white.	White to creamy-white.
Cleanliness	Slightly stained, leafy.	Slightly stained, leafy.	Occasional stain.	Occasional stain; leafy.	Leafy	Some what stained; leafy.	Some what leafy.	Some what leafy.	Very slightly stained; leafy.	Leafy; a trifle stained.	Leafy.
Feel	.. Somewhat roughish.	Fairly good feel.	..	Slightly rough in feel.	Good	Softish	Good	Smooth and bodied.	Good	Roughish.	Roughish.
Ginning and neppiness.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Fairly knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Not well-ginned.
Seeds	.. 1% unginned seeds.	1.4% unginned seeds.	2.1% ginned and unginned.	1.8% unginned.	1.4% ginned.	1.4% ginned and unginned.	2.75% ginned and unginned.	A few seeds.	1.3% seeds	..	Quite a few seeds.
Card silver	.. Clean	.. Clean	.. Clean	.. Clean	..	Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. A little leafy
Card web	.. Nep-free	.. Nep-free and even.	.. Good	.. Free of nep.	..	Practically nep-free.	Good	.. Even and nep-free.	Good	.. Good	.. Good.
Weight of flat strips.	10 15.2 grams.	10 16.5 grams	10 15.3 grams	10 16.3 grams	..	10 16.5 grams	10 16.8 grams	10 15.4 grams	10 19.5 grams	10 18.0 grams	10 20.1 grams.
Remarks	.. Fully pressed; staple weak for its length.	..	Fully pressed.	..	Fully pressed.	..	..	..	..	..	..

(b) Yarn :—

	KHANDESH.										
	Yawal.		Ranala.		Nimbora.		Saudha.				
	1930-31.	1931-32.	1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	.. Clean	.. Clean	.. Clean	.. Almost clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean	.. Clean.
Evenness	.. Even	.. Even	.. Even in the lower counts only.	.. Even to fairly even.	.. Even in lower count.	.. Fairly even.	.. Fairly even.	.. Even	.. Fairly even.	.. Fairly even.	.. Fairly even.
Neppiness	.. Free of nep.	.. Free of nep.	.. Free of nep.	.. Practically free of nep	.. Nep-free	.. Almost free of nep.	.. Almost free of nep.	.. Free of nep.	.. Free of nep.	.. Nep-free	.. Free of nep.
Slubbiness	..	..	..	..	..	.. Occasional slub.	..	..	.. A little slubby	.. A little slubby	.. Occasional slub.

3. Spinning Test Details and Results :—See Table 8 on page 101.

II.—GRADER'S REPORT* FOR KHANDESH COTTON.

KHANDESH.																										
Yawal.			Ranala.			Nimbora.			Sandha.																	
1930-31.			1931-32.			1930-31.			1931-32.			1932-33.			1933-34.			1934-35.			1935-36.			1936-37.		
Contract valued under	..	..	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Fine.	Oomra.	Fully good to fine.	Oomra.	Fine.	Oomra.	Fine.	Oomra.	Fine.	Oomra.	Fine.	Oomra.	Fully good M.G.	Oomra.	Fully good M.G.	
Class	..	..	Fully good.	Fine.	Fully good.	Fine.	Fully good.	Fine.	Fine.	Fully good.	White.	White.	White.	White.	White.	White.	White.	White.	White.	Fairly white with creamish tint.	Fairly white with creamish tint.	11/16 inch.	11/16 inch.	
Colour	..	..	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	White.	
Staple Length	..	..	5/8 inch.	3/4 inch.	13/16 inch.	13/16 inch.	13/16 inch.	13/16 inch.	27/32 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	3/4 inch.	
Staple Strength	..	..	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	Fair.	
Regularity	..	..	Fair.	Good.	Fair.	Good.	Fair.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	Good.	
Value above or below contract rate	..	..	Rs. 5 off.	Rs. 15 on.	Rs. 5 on.	Rs. 17 on.	Rs. 5 on.	Rs. 18 on.	Rs. 18 on.	Rs. 8 on.	Rs. 8 on.	Rs. 8 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	Rs. 1 on.	
Basis	..	..	Rs. 165.	Rs. 212.	Rs. 165.	Rs. 212.	Rs. 165.	Rs. 212.	Rs. 212.	Rs. 188.	Rs. 188.	Rs. 188.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	Rs. 179.	
Date of Valuation	..	..	5-2-31.	10-2-32.	5-2-31.	10-2-32.	5-2-31.	10-2-32.	10-2-32.	9-1-33.	9-1-33.	9-1-33.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	22-1-34.	
Remarks	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 8.—SPINNING TEST RESULTS FOR KHANDESH COTTON.

Sample No.	Cotton.	Season.	Date of Spinning	WASTE PERCENTAGES.						RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE, (°F.).	RELATIVE HUMIDITY (%).		
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss,†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	I.E.A.			BALLISTIC.			Neps per yard.	Turns per inch.	Spinning Room.			Testing Room.	
													Counts Actual.	Strength (lbs.).	Count-Strength	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
965	Khandesh (Yawal) ..	1930-31	2-2-31	8	10	9.4	9.2	0.2	17.9	0	200	..	4.27	11.31	7.0	113.9	900	8.0	281.6	2253	3	1.2	11.0	80	71
966	Khandesh (Yawal) ..	1930-31	31-1-31	10A	..	..	..	..	..	10	184	..	5.42	12.63	10.0	72.0	720	10.2	201.8	2089	4	1.7	12.3	81	69
965	Khandesh (Yawal) ..	1930-31	2-2-31	10B	..	..	..	..	..	40	190	..	5.52	13.58	10.2	89.4	912	10.1	232.6	2340	5	2.0	13.2	80	67
1247	Khandesh (Yawal) ..	1931-32	2-2-32	8	10	10.5	11.3	0.4	20.9	44	204	6250	4.78	11.31	8.1	108.8	881	8.2	283.2	2324	3	1.0	10.0	80	70
1217	Khandesh (Yawal) ..	1931-32	1-2-32	10A	..	..	..	..	..	55	180	6300	5.21	12.63	10.0	77.1	771	10.0	221.2	2212	4	1.0	12.1	82	71
1247	Khandesh (Yawal) ..	1931-32	1-2-32	10B	..	..	..	..	..	45	188	6950	5.32	13.58	10.3	91.1	969	10.4	220.8	2296	4	1.0	13.0	82	66
967	Khandesh (Manala) ..	1930-31	2-2-31	10	10	12.7	9.3	0.6	21.2	30	106	..	5.03	12.03	10.4	86.9	901	10.1	235.2	2376	1	1.2	12.2	80	73
967	Khandesh (Manala) ..	1930-31	2-2-31	12	..	..	..	..	..	24	188	..	5.74	13.92	11.9	78.6	935	12.0	196.2	2354	5	1.5	13.4	83	67
967	Khandesh (Manala) ..	1930-31	3-2-31	14	..	..	..	..	..	80	175	..	6.75	15.08	13.0	59.8	789	13.8	146.8	2020	6	1.6	14.8	82	69
1249	Khandesh (Manala) ..	1931-32	2-2-32	12	10	11.3	10.8	0.5	21.3	29	188	7200	6.28	13.92	11.9	87.1	1036	12.1	185.6	2216	3	1.8	13.6	82	66
1249	Khandesh (Manala) ..	1931-32	2-2-32	14A	..	..	..	..	..	18	175	7200	6.50	15.08	13.6	71.6	974	13.9	147.2	2016	4	2.0	14.7	83	65
1249	Khandesh (Manala) ..	1931-32	3-2-32	14B	..	..	..	..	..	55	185	7800	6.54	15.07	13.0	78.6	1092	11.0	159.8	2238	4	1.8	15.4	82	66
968	Khandesh ..	1930-31	2-2-31	10	10	12.3	10.2	0.7	21.8	10	195	..	5.51	12.03	10.4	89.1	916	10.3	239.6	2167	4	1.2	12.1	80	73
968	Khandesh ..	1930-31	2-2-31	12A	..	..	..	..	..	48	186	..	5.74	13.92	11.6	80.2	1031	11.0	202.1	2409	5	1.7	13.4	83	67
968	Khandesh ..	1930-31	2-2-31	14A	..	..	..	..	..	93	175	..	6.75	15.08	11.1	57.1	805	14.2	136.8	1912	6	2.0	14.5	82	68
1250	Khandesh ..	1931-32	3-2-32	12A	10	10.2	10.3	0.6	19.8	65	187	7250	6.38	13.92	12.2	80.2	978	12.6	184.0	2320	4	0.8	13.5	82	69
1250	Khandesh ..	1931-32	4-2-32	14A	..	..	..	..	..	60	175	7300	6.38	15.08	13.8	69.0	911	13.8	174.4	2407	4	1.2	14.6	81	66
1250	Khandesh ..	1931-32	4-2-32	14B	..	..	..	..	..	30	183	7600	6.39	15.07	13.6	81.9	1114	13.8	168.0	2318	4	1.2	15.4	81	66
1603	Khandesh ..	1932-33	5-1-33	12A	10	12.3	10.5	0.6	22.0	138	180	7300	6.44	13.92	12.2	71.1	867	12.1	184.8	2236	4	1.2	13.6	80	74
1603	Khandesh ..	1932-33	5-1-33	14A	..	..	..	..	..	131	166	6960	6.10	14.08	13.6	61.0	630	14.8	157.2	2327	4	1.2	14.3	81	66
1603	Khandesh ..	1932-33	6-1-33	14B	..	..	..	..	..	51	180	7650	6.22	15.07	13.8	70.2	960	13.8	173.2	2390	4	1.2	15.6	80	72
2105	Khandesh ..	1933-34	27-1-34	12A	10	10.0	10.8	0.3	20.6	68	198	7600	5.25	13.92	12.0	78.5	942	12.0	191.8	2338	3	0.5	13.4	81	68
2105	Khandesh ..	1933-34	27-1-34	14A	..	..	..	..	..	87	168	7000	6.13	14.08	13.0	63.8	887	14.2	193.2	2317	4	0.5	11.5	81	67
2105	Khandesh ..	1933-34	27-1-34	14B	..	..	..	..	..	58	176	7750	6.13	15.97	11.0	75.9	1003	13.9	170.8	2374	4	0.8	15.4	81	67
2663	Khandesh ..	1934-35	15-2-35	10	10	10.3	10.9	0.4	20.4	27	169	6800	5.22	12.63	10.2	70.3	896	10.2	225.2	2297	1	1.0	12.0	80	69
2663	Khandesh ..	1934-35	16-2-35	12B	..	..	..	..	..	36	166	6200	5.21	12.92	11.9	61.7	734	12.2	185.2	2259	5	0.8	13.2	79	67
2663	Khandesh ..	1934-35	16-2-35	14B	..	..	..	..	..	14	183	7300	5.21	14.68	12.1	74.2	899	12.2	187.6	2280	5	1.0	14.2	79	69
3031	Khandesh ..	1935-36	14-1-36	10	10	10.2	12.3	0.3	21.4	30	197	6800	5.60	12.63	10.4	72.4	753	10.3	201.0	2081	4	0.8	12.0	79	68
3031	Khandesh ..	1935-36	14-1-36	12A	..	..	..	..	..	20	170	6200	5.55	13.92	12.0	66.5	678	11.0	178.4	2123	4	0.5	13.5	79	67
3031	Khandesh ..	1935-36	14-1-36	12B	..	..	..	..	..	20	182	7300	5.08	14.08	12.7	67.9	786	12.3	183.2	2253	1	0.5	14.2	80	68
3430	Khandesh ..	1936-37	21-12-36	10A	10	10.5	13.9	0.4	22.3	55	181	6100	5.40	12.63	10.4	18.2	501	10.2	181.0	1862	4	0.6	12.1	79	63
3430	Khandesh ..	1936-37	21-12-36	10B	..	..	..	..	..	36	196	7200	6.10	13.68	10.3	68.6	707	10.4	191.0	2018	4	0.8	13.1	79	63
3430	Khandesh ..	1936-37	21-12-36	12B	..	..	..	..	..	80	182	7200	5.40	14.08	12.1	60.2	505	12.8	193.2	2007	1	0.8	11.4	79	63

* The number of 1 1/2 turns from center to 1 1/2.

9(a).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first rivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
969	Ujjain	Ujjain	.. 1930-31	2664	Ujjain	Ujjain	.. 1934-35
1251	"	"	.. 1931-32	3028	"	"	.. 1935-36
1670	"	"	.. 1932-33	3453	"	"	.. 1936-37
2107	"	"	.. 1933-34				

I.—SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		UJJAIN (UJJAIN).						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	..	Creamy-white.	Creamy white; slightly bright.	White ..	White to creamy-white; brightish.	Creamy-white.	White.	White.
Cleanliness	..	Fairly leafy	Occasional stain; fairly leafy.	Leafy ..	Occasional stain; somewhat leafy.	Occasionally stained; leafy	Leafy; a little stained.	Leafy.
Feel	..	Good ..	Good ..	Soft and fairly good.	Good smooth ..	Smooth ..	Good.	Good.
Ginning and neppiness.	..	A good deal knotted.	Fairly well-ginned.	Somewhat knotted and nepped.	Well-ginned ..	Well-ginned ..	Well-ginned.	..
Seeds	..	1.9% unginned.	2% ..	..	Contains a few unginned seeds.	Contains 1.3% seeds.	Contains 78 % full clean seeds.	2.44%
Card sliver	..	..	Almost clean ..	Almost clean ..	Clean ..	Clean ..	Fairly clean.	Leafy.
Card web	..	..	Nep-free; a trifle cloudy.	Good ..	Even and nep-free.	Good ..	Web good.	A little neppy.
Weight of 10 flat strips.	..	..	19.8 grams	17.7 grams	18.5 grams	20.0 grams	17.1 grams.	..
Remarks	..	Staple irregular and weak.	..	Slightly watered.	..	..	..	..

(b) Yarn :—

		UJJAIN (UJJAIN).						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	..	Clean ..	Fairly clean ..	Almost clean ..	Clean ..	Almost clean ..	Clean.	Fairly clean.
Evenness	..	Fairly even in lower counts.	..	Even in two lower counts.	Even ..	Even ..	Even.	Even in the lower count only.
Neppiness	..	Fairly free of nep.	Somewhat neppy.	Practically free of nep.	Nep-free ..	Fairly free of nep.	Nep-free.	Fairly free of nep.
Slubbiness	..	A little slubby.	Slubby ..	A trifle slubby.	..	..	..	..
Remarks	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 9(a) on page 104.

II.—GRADER'S REPORT* FOR UJJAIN COTTON.

UJJAIN (UJJAIN).									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under		Broach.	Broach.	Broach.	Broach.	Broach.	Oomra.	Oomra.	Fully good M.G.
Class		Fully good.	Fully good to fine.	Fully good.	Fully good.	Fully good.	Fully good.	Fully good.	Dull.
Colour		White.	White.	Whitish.	White.	White.	Fairly white.	Fairly white.	$\frac{3}{4}$ inch.
Staple Length		$\frac{7}{8}$ inch.	$3\frac{1}{4}$ inch.	$1\frac{1}{2}$ inch.	$2\frac{1}{2}$ inch.	$\frac{5}{8}$ inch.	$3\frac{3}{4}$ inch.	Good.	Fairly good.
Staple Strength		Fair.	Fair.	..	Fair.	Good.	Good.	Good.	Fairly good.
Regularity		Fair.	Good.	Irregular.	Very fair.	Fair.	Good.	Good.	Fairly good
Value above or below contract rate		Rs. 10 off.	Rs. 20 on.	Rs. 5 off.	Rs. 5 off.	Rs. 20 on.	Rs. 18 on.	Rs. 18 on.	Re. 1 on.
Basis		Rs. 200.	Rs. 220.	Broach F. G. April-May 1933.	Rs. 199.	Rs. 252.	Rs. 201.	Rs. 201.	Rs. 208.
Date of Valuation		5-2-31.	10-2-32.	..	22-1-34.	8-2-35.	4-1-36.	4-1-36.	30-12-36.
Remarks		..	..	Silky with fine fibres; leafy.	..	..	..	..	..

* Report since 1932-33 is made up by the mill supplying the sample.

Table 9(a)—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Table 3(a)—SPINNING TEST REPORTS FOR 1937																												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).	Testing Room.
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	L.E.A.			BALISTIC.			Tensile Class.	Knots per yard.	Turns per inch Actual.	Spinning Room.				
															Counts Actual.	Strength (lbs.)	Count Strength	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.								
969	Ujjain ..	1930-31	3-2-31	10	10	11.1	10.1	0.2	20.2	0	194	..	5.21	12.63	9.9	125.0	1237	10.0	247.2	2472	3	2.0	12.2	81	65	68	68	
969	Ujjain ..	1930-31	3-2-31	12	..	..	..	..	..	8	189	..	5.43	13.92	12.1	90.7	1007	12.0	197.6	2371	4	2.5	13.6	81	67	69	69
969	Ujjain ..	1930-31	3-2-31	14	..	..	..	..	..	7	176	..	6.28	15.08	13.7	79.5	1089	13.9	154.4	2149	6	2.5	14.0	82	70	74	74
1251	Ujjain ..	1931-32	3-2-32	12	10	10.9	11.4	0.5	21.5	44	187	7250	6.22	13.92	12.1	87.1	1034	11.8	196.0	2312	4	2.0	13.3	82	69	71	71	
1251	Ujjain ..	1931-32	4-2-32	14A	..	..	..	..	..	42	175	7300	6.38	16.08	13.6	80.1	1081	13.6	173.2	2356	5	1.2	14.5	81	68	70	70
1251	Ujjain ..	1931-32	4-2-32	14B	..	..	..	..	..	42	183	7600	6.41	15.97	13.4	91.3	1223	13.8	169.4	2338	5	2.2	15.3	81	66	70	70
1670	Ujjain ..	1932-33	23-2-33	12	10	11.9	9.6	0.4	20.6	7	190	7360	6.55	13.92	11.9	100.1	1101	12.2	205.2	2503	3	1.8	13.6	83	69	70	70	
1670	Ujjain ..	1932-33	24-2-33	14	..	..	..	..	..	80	190	8300	6.58	15.97	14.3	84.3	1205	14.1	178.4	2515	4	1.2	15.6	82	67	72	72
2107	Ujjain ..	1933-34	30-1-34	10	10	11.1	10.8	0.2	20.8	0	202	7000	5.42	12.63	10.0	188.7	1587	10.1	280.4	2832	3	0.8	12.2	79	67	67	67	
2107	Ujjain ..	1933-34	29-1-34	12A	..	..	..	..	..	0	197	7450	5.32	13.92	11.8	133.7	1378	12.0	236.4	2836	3	0.5	13.4	80	67	72	72
2107	Ujjain ..	1933-34	29-1-34	12B	..	..	..	..	..	7	200	8000	5.43	14.68	12.1	136.3	1649	12.0	243.2	2918	3	0.5	14.2	79	67	72	72
2107	Ujjain ..	1933-34	1-2-34	14	..	..	..	..	..	51	193	8200	6.34	15.97	14.3	106.3	1520	14.1	188.8	2662	4	0.6	15.4	82	61	68	68
2664	Ujjain ..	1934-35	18-2-35	12	0	10.4	11.1	0.2	20.6	0	200	7600	6.32	13.92	12.2	120.4	1499	12.0	237.2	2846	3	2.0	13.3	79	69	68	68	
2664	Ujjain ..	1934-35	18-2-35	14A	..	..	..	..	..	7	182	7600	5.10	14.98	14.3	99.6	1424	14.1	202.0	2848	4	1.5	14.8	80	68	70	70
2664	Ujjain ..	1934-35	18-2-35	14B	..	..	..	..	..	0	192	8200	5.10	15.97	14.0	111.2	1557	14.1	203.6	2871	4	2.0	15.5	80	68	68	68
2664	Ujjain ..	1934-35	22-2-35	16	..	..	..	..	..	36	180	7000	5.95	15.97	16.4	69.6	1141	16.6	165.2	2742	5	1.8	15.5	80	70	71	71
3028	Ujjain ..	1935-36	10-1-36	12	10	11.6	11.4	0.2	21.8	0	198	7550	5.30	13.92	11.0	121.0	1464	12.2	226.8	2767	4	0.5	13.6	79	70	70	70	
3028	Ujjain ..	1935-36	11-1-36	14A	..	..	..	..	..	15	180	8850	5.30	14.98	14.3	92.8	1327	14.2	190.4	2704	4	0.5	14.8	78	66	65	65
3028	Ujjain ..	1935-36	11-1-36	14B	..	..	..	..	..	29	186	8000	5.30	15.97	14.3	110.2	1576	14.0	202.4	2834	4	0.8	15.6	75	65	64	64
3453	Ujjain ..	1936-37	5-1-37	12	8	14.8	14.6	0.5	27.6	22	197	7600	5.43	13.92	12.8	63.2	800	12.7	188.4	2893	3	1.0	13.5	81	65	68	68	
3453	Ujjain ..	1936-37	5-1-37	14A	..	..	..	..	..	22	186	7600	5.32	14.98	14.4	58.6	815	14.9	166.4	2479	4	1.0	14.6	80	66	72	72
3453	Ujjain ..	1936-37	5-1-37	14B	..	..	..	..	..	36	184	8000	5.32	15.97	14.0	79.6	1114	14.5	182.4	2645	5	1.5	15.7	70	66	72	72

* Diameter of ring frame front roller: 1". Diameter of rings: 1 1/2".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

9(b).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample Cotton. No.	Place.	Season.	Sample Cotton. No.	Place.	Season.
966	Ujjain	Sujalpur	2146	Ujjain	Mandsaur
1248	"	"	2666	"	"
970	"	Mandsaur	3064	"	"
1601	"	"	3454	"	"

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room* :—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* :—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	UJJAIN (SUJALPUR).		UJJAIN (MANDSAUR).					
	1930-31.	1931-32.	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	White to creamy-white.	Creamy-white.	Creamy-white.	White; brightish.	White to creamy-white; brightish.	White.	White to creamy-white.	Creamy-white to white.
Cleanliness ..	Leafy; somewhat stained.	Fairly leafy; a good deal stained.	Leafy; stained.	Somewhat leafy.	Fairly clean.	Fairly leafy.	Somewhat leafy; a little stained.	Leafy; a little stained.
Feel ..	..	Softish.	Goodish.	Roughish.	Good.	Good.	Roughish.	Fair.
Ginning and neppiness.	Fairly well-ginned.	Fairly well-ginned.	Fairly well-ginned.	Good.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds ..	1.6% unginned.	1.25% mainly unginned.	2% unginned.	3% unginned.	..	Contains 2.9% seeds and kapas.	..	0.94%.
Card sliver ..	Comparatively clean.	Almost clean.	..	Clean.	Clean.	Clean.	Fairly clean.	Contains a little leaf.
Card web ..	First class ..	Slightly neppy.	..	Fairly good; considerable fly shedding.	Good.	Good.	Good.	A little leafy but free from nep.
Weight of 10 flat strips.	17.2 grams ..	22.1 grams ..	..	20.1 grams ..	15.7 grams ..	19.6 grams ..	18.4 grams.	19.5 grams.
Remarks ..	Fully-pressed	..	..	Excessive yarn breakage.	..	..	..	..

(b) Yarn :—

	UJJAIN (SUJALPUR).		UJJAIN (MANDSAUR).					
	1930-31.	1931-32.	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Clean.	Fairly clean.	Clean.	Clean.	Clean.	Almost clean.	Clean.	A little leafy.
Evenness ..	Even.	Fairly even.	Fairly even.	Fairly even.	Even in two lower counts.	Fairly even.	Even.	Fairly even.
Neppiness ..	Fairly free of nep.	A little neppy.	..	Almost nep-free.	Free of nep.	Practically nep-free.	Free of nep.	Almost free of nep.
Slubbiness ..	..	..	..	..	..	..	A little slubby.	..
Remarks ..	..	..	A little leafy.	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 9(b) on page 107.

II.—GRADER'S REPORT* FOR UJJAIN COTTON.

		UJJAIN (SUGALPUR).				UJJAIN (MANDSAUR).			
		1930-31.	1931-32.	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	..	Broach.	Broach.	Broach.	Oomra.	Oomra.	Broach.	Oomra.	Oomra.
Class	..	Fully good.	Fully good to fine	Fully good.	Fine.	Fine.	Fully good.	Fully good.	Fully good M.G.
Colour	..	White.	White.	White.	White.	White.	White.	Dull white.	White.
Staple Length	..	$\frac{7}{8}$ inch.	$\frac{11}{8}$ inch.	$\frac{7}{8}$ inch.	$\frac{3}{4}$ inch.	$\frac{31}{8}$ inch.	$\frac{13}{8}$ inch.	$\frac{11}{8}$ inch.	$\frac{1}{4}$ inch.
Staple Strength	..	Fair.	Fair.	Fair.	Fair.	Fair.	Good.	Fair.	Fairly good.
Regularity	..	Fair.	Good.	Fair.	Fair.	Fair.	Fair.	Irregular.	Fairly good.
Value above or below contract rate.	..	Rs. 10 off.	Rs. 20 on.	Rs. 10 off.	Rs. 10 on.	Par.	Rs. 5 on.	Rs. 5 on.	Rs. 3 off.
Basis	..	Rs. 200. .	Rs. 220.	Rs. 200.	Rs. 188.	Rs. 183.	Rs. 252.	Rs. 182.	Rs. 208.
Date of Valuation	..	5-2-31.	10-2-32.	5-2-31.	..	15-2-34.	8-2-35.	30-1-36.	30-12-36.
Remarks	..	..	..	..	..	..	..	..	..

* Report since 1932-33 is made up by the mill supplying the sample.

Table 9(b)—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE. RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	LEA.			BALISTIC.			Evenness Class.	Keps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.	Testing Room.
															Counts Actual.	Strength (lbs)	Count-Strength	Counts Actual.	Work of Rotor (Inch-lb.)	Count-Work Product.						
966	Sulapur	1930-31	31-1-31	10	10	10.3	9.7	0.4	19.3	10	196	..	5.42	12.63	10.0	125.5	1255	10.1	249.6	2521	3	1.2	12.3	81	88	04
966	"	1930-31	31-1-31	12	10	..	..	..	..	24	186	..	5.10	13.92	11.6	107.5	1247	11.7	205.2	2401	4	1.5	13.6	81	89	71
966	"	1930-31	31-1-31	14	10	..	..	..	..	40	174	..	6.67	15.08	13.8	77.3	1007	14.3	189.2	2277	5	2.0	14.8	80	88	09
1248	Sulapur	1931-32	2-2-32	12	10	11.6	12.2	0.6	22.8	65	188	7200	6.25	13.92	12.2	88.7	1082	12.1	194.8	2356	4	3.5	13.6	82	86	06
1248	"	1931-32	2-2-32	14A	10	..	..	..	..	24	175	7200	6.54	15.08	13.6	82.7	1125	13.9	169.6	2218	4	3.0	14.5	83	88	06
1248	"	1931-32	3-2-32	14B	10	..	..	..	..	36	185	7800	6.58	15.97	13.7	90.8	1256	14.1	167.2	2358	4	2.8	16.6	82	86	05
970	Mandsaur	1930-31	3-2-31	10	10	13.1	9.9	0.5	22.1	110	194	..	5.10	12.63	10.1	113.0	1147	10.1	230.4	2327	4	2.5	12.3	81	65	68
970	"	1930-31	3-2-31	12	10	..	..	..	..	16	189	..	5.32	13.92	11.8	90.7	1070	11.8	190.4	2247	5	2.7	13.6	81	67	67
970	"	1930-31	3-2-31	14	10	..	..	..	..	33	176	..	6.13	15.08	14.0	58.4	818	14.2	149.6	2124	6	2.5	14.6	82	70	75
1601	Mandsaur	1932-33	4-1-33	10	10	12.8	12.0	0.6	23.8	73	184	6300	5.31	12.63	10.0	71.1	711	10.0	196.8	1968	4	1.0	12.1	80	69	72
1601	"	1932-33	4-1-33	12A	10	..	..	..	..	102	176	6800	5.42	13.92	11.9	53.7	639	11.9	169.2	2013	5	1.0	13.4	82	67	74
1601	"	1932-33	5-1-33	12B	10	..	..	..	..	87	177	7150	5.52	14.68	12.1	62.0	750	12.3	180.4	2119	5	1.2	14.1	80	67	74
2146	Mandsaur	1933-34	10-2-34	10	10	8.9	10.8	0.3	19.0	55	198	6800	5.21	12.63	10.3	94.2	970	10.0	263.6	2636	3	0.8	12.2	83	60	72
2146	"	1933-34	20-2-34	12	10	..	..	..	..	15	190	7200	5.53	13.92	11.9	81.2	966	12.1	205.2	2483	3	0.8	13.5	81	60	72
2146	"	1933-34	20-2-34	14	10	..	..	..	..	58	178	7700	6.10	13.97	14.2	71.7	1018	14.4	164.4	2367	5	1.0	15.5	81	70	72
2606	Mandsaur	1934-35	10-2-35	10	10	12.7	10.3	0.3	21.9	0	202	7000	5.12	12.63	10.0	119.7	1197	9.9	256.8	2542	4	1.0	12.0	81	69	68
2606	"	1934-35	10-2-35	12	10	..	..	..	..	15	196	7450	5.33	13.92	12.5	80.0	1000	12.4	198.8	2405	5	1.2	13.5	79	69	69
2606	"	1934-35	18-2-35	14	10	..	..	..	..	51	180	8000	6.15	15.97	14.2	81.6	1159	14.1	174.0	2453	5	1.2	16.4	80	69	67
3064	Mandsaur	1935-36	4-2-36	8A	10	9.4	13.4	0.3	21.7	33	180	6500	5.00	11.31	8.2	55.4	454	8.2	196.0	1907	3	0.8	11.2	81	72	68
3064	"	1935-36	4-2-36	8B	10	..	..	..	..	33	192	6800	5.20	12.07	8.1	84.7	680	8.2	248.8	2040	3	0.8	12.2	82	69	65
3064	"	1935-36	4-2-36	10B	10	..	..	..	..	27	174	7100	5.44	14.29	10.2	72.2	736	10.6	208.0	2080	4	0.5	14.5	79	65	68
3454	Mandsaur	1936-37	5-1-37	8A	10	10.6	13.3	0.4	22.3	22	182	6500	5.10	11.31	8.5	58.4	400	8.5	211.2	1916	4	0.5	11.0	81	68	66
3454	"	1936-37	7-1-37	8B	10	..	..	..	..	22	192	6300	3.95	12.07	8.1	107.9	874	8.1	288.8	2330	4	0.8	11.7	80	64	72
3454	"	1936-37	6-1-37	10A	10	..	..	..	..	64	188	7100	4.89	13.58	10.2	73.1	746	10.1	208.8	2109	4	0.8	13.2	81	61	74
3454	"	1936-37	6-1-37	10B	10	..	..	..	..	18	190	7500	4.89	14.29	9.9	96.9	950	10.1	219.6	2218	4	0.5	13.6	80	61	70

* Diameter of ring frame front roller: $\frac{3}{8}$ ". Diameter of rings: 14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

10.—MOGLAI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Weight (lbs.)
1604	Moglai	Partur	1932-33	11
2145	"	Partur	1933-34	9
2665	"	Partur	1934-35	12
3029	"	Partur	1935-36	11
3458	"	Partur	1936-37	11½

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Up to 1934-35 (inclusive) :—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times). 1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	MOGLAI.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white.	White to creamy-white.	Dullish white to creamy-white.	White to creamy-white; brightish.	Creamy-white to white; darkish tinge.
Cleanliness ..	Leafy.	Leafy.	Leafy.	Leafy.	A trifle stained.
Feel	Good.	Good roughish.	Good.	Good.	Fair.
Ginning and Neppiness ..	Good.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.
Seeds	2% small size, ginned, partly ginned and unginned.	1.1% unginned.	..	..	..
Card sliver ..	Almost clean.	Good.	Clean.	Clean.	Good; slightly leafy.
Card web ..	Good.	Good.	Good.	Even and nep-free.	Good but a little leafy.
Weight of 10 flat strips ..	17.9 grams.	15.9 grams.	20.4 grams.	13.7 grams.	..
Remarks	Spots of stain and unripe fibres noticeable.	8 lb. sample.	..	..	..

(b) Yarn :—

	MOGLAI.				
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.	Fairly clean.	A little leafy.
Evenness	Even.	Somewhat uneven.	Fairly even.	Even in the lower counts.	Fairly even.
Neppiness	Practically nep-free.	Free of nep.	Almost free of nep.	Free of nep.	Almost free of nep.
Slubbiness .. ..	..	..	A little slubby.	A little slubby.	..
Remarks .. ..	..	..	..	..	..

3. *Spinning Test Details and Results*.—See Table 10 on page 110.

II.—GRADER'S REPORT* FOR MOGLAI COTTON.

		MOGLAI.				
		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. ..	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.
Class .. ..	.. ..	Fine.	Fine.	Fine.	Fully good.	Fully good M. G.
Colour .. ..	.. ..	White.	Dull white.	White.	Fairly white.	Dull white.
Staple Length ..	.. ..	$\frac{3}{4}$ inch.	$\frac{5}{8}$ inch.	$\frac{3}{4}$ inch.	$\frac{5}{8}$ inch.	$\frac{11}{16}$ inch.
Staple Strength ..	.. ..	Fair.	Fair.	Fair.	F. Good	Good.
Regularity .. ..	.. ..	Fair.	Fair.	Fair.	Good.	Good.
Value above or below contract rate	.. ..	Rs. 10 on.	Rs. 10 off.	Rs. 5 on.	Rs. 3 on.	Rs. 2 on.
Basis .. ..	.. ..	Rs. 188.	Rs. 183.	Rs. 220.	Rs. 201.	Rs. 208.
Date of Valuation ..	.. ..	9-1-33.	15-2-34.	8-2-35.	4-1-36.	8-1-37.
Remarks .. ..	.. ..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 10.—SPINNING TEST RESULTS FOR MOGLAI COTTON.

WASTE PERCENTAGES.										RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE. AFTER. (°F)	RELATIVE HUMIDITY (%)			
Sample No.	Cotton.	Season.	Date of Spinning	Counts Nominal.	Weight of Sample, lbs.	Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	Counts Actual.	Count-Strength Product.	Work of Rupture (inch-lbs.)	Count-Work Product.	Evenness class.	Steps per yard.	Turns per inch. Actual.		Spinning Room.	Spinning Room.	Testing Room.	
						74	74	72	72		72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
1604	Mogral	1932-33	6-1-33	10A	10	11.9	10.3	0.0	21.4	73	182	6250	5.32	12.63	10.0	92.7	927	10.0	220.1	2201	4	1.2	12.0	81	70	74
1604	"	1932-33	6-1-33	12A		"	"	"	"	85	185	7100	5.33	13.92	11.0	78.7	913	12.0	184.8	2218	4	1.5	13.3	80	70	74
1604	"	1932-33	9-1-33	12B		"	"	"	"	102	190	7500	5.43	14.08	11.0	92.2	1070	11.7	196.4	2208	4	1.2	14.3	80	70	72
2145	Mogral	1933-34	19-2-34	10A	8	11.3	13.5	0.4	23.6	18	198	6800	5.21	12.63	10.0	89.4	894	10.1	231.0	2330	4	1.0	12.2	83	69	72
2145	"	1933-34	20-2-34	12A		"	"	"	"	68	180	7200	5.53	13.92	11.0	67.5	803	11.9	188.0	2237	5	0.8	13.5	81	66	71
2145	"	1933-34	20-2-34	12B		"	"	"	"	95	195	7700	5.53	14.08	12.0	84.4	1013	12.1	184.4	2231	5	1.5	14.2	81	68	72
2665	Mogral	1934-35	19-2-35	10A	10	9.7	10.6	0.5	19.8	27	202	6950	5.24	12.63	10.3	77.1	797	10.0	230.4	2304	1	1.8	12.1	80	67	68
2665	"	1934-35	19-2-35	12A		"	"	"	"	87	180	7000	5.38	13.92	12.4	51.9	644	12.4	175.2	2172	5	1.0	13.4	80	63	68
2665	"	1934-35	19-2-35	12B		"	"	"	"	36	188	7500	5.38	14.08	12.4	68.1	848	12.3	184.4	2268	5	1.2	14.2	91	69	70
3029	Mogral	1935-36	11-1-36	8	10	12.0	11.4	0.2	22.3	44	208	7000	6.00	11.31	8.2	105.4	864	8.5	280.1	2363	3	0.5	10.9	70	65	66
3029	"	1935-36	13-1-36	10A		"	"	"	"	9	198	7000	5.70	12.63	10.0	87.9	879	10.0	294.4	2344	4	0.8	12.1	76	63	67
3029	"	1935-36	17-1-36	10B		"	"	"	"	36	204	7500	5.10	13.58	10.2	109.3	1115	10.0	240.8	2408	4	0.5	13.0	70	61	61
3029	"	1935-36	13-1-36	12B		"	"	"	"	36	193	7500	5.98	14.08	11.8	84.4	896	11.7	199.6	2335	5	0.5	14.0	77	64	66
3458	Mogral	1936-37	15-1-37	8	10	11.9	11.3	0.4	22.2	0	198	6200	4.04	11.31	8.0	108.5	808	7.9	306.0	2417	3	0.2	10.7	80	65	70
3458	"	1936-37	12-1-37	10A		"	"	"	"	0	190	6500	5.10	12.63	10.2	60.2	675	10.4	292.4	2103	4	0.2	12.0	81	64	70
3458	"	1936-37	12-1-37	12A		"	"	"	"	109	184	7150	5.81	13.92	11.8	56.5	637	11.5	188.4	2167	4	0.5	13.4	79	64	69
3458	"	1936-37	13-1-37	12B		"	"	"	"	87	191	7000	6.25	11.08	12.4	57.2	709	12.7	170.4	2164	5	0.5	14.2	80	62	72

* Diameter of ring frame front roller—F. Diameter of ring—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

11.—WESTERNS COTTON.

These samples have been tested by arrangements with the Millowner's Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2254	Westerns	Guntakal	1933-34.
2749	Westerns	Guntakal	1934-35.
3151	Westerns	Guntakal	1935-36.
3686	Westerns	Raichur	1936-37.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

—	WESTERNS.			
	1933-34.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; dullish.	Creamy-white to creamy.
Cleanliness	Leafy.	Leafy.	Leafy.	Leafy.
Feel	Good.	Good smooth.	Good.	Soft.
Ginning and neppiness ..	Well-ginned.	A trifle knotted.	Well-ginned.	Good.
Seeds	1.7% partly-ginned.	....	....	....
Card Sliver	Clean.	Clean.	Almost clean.	Leafy.
Card Web	Even and nep-free.	Even and nep-free.	Good.	Fair; a little neppy.
Weight of 10 flat strips ..	13.8 grams.	18.2 grams.	13.6 grams.	23.6 grams.
Remarks .. .. .	....	....	....	....

(b) *Yarn* :—

—	WESTERNS.			
	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Almost clean.	Clean.	Almost clean.	Fairly leafy.
Evenness	Fairly even.	Fairly even.	Fairly even.	Fairly even.
Neppiness	Free of nep.	Almost free of nep.	Almost free of nep.	Almost free of nep.
Slubbiness .. .. .	....	....	....	....

3. *Spinning Test Details and Results* :—See Table 11 on page 113.

II.—GRADER'S REPORT* FOR WESTERNS COTTON.

		WESTERNS.			
		1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. ..	Broach.	July/Aug. Broach.	Broach April/May.	July/Aug. Broach.
Class .. ..	.. ..	Strict fine.	Fine.	Fine.	Fully good.
Colour .. ..	.. ..	White.	White.	Brownish white.	Brownish white.
Staple Length ..	.. ..	31/32 inch.	Barely 13/16 inch.	20/32 inch.	13/16 inch.
Staple Strength	.. ..	Good.	Fair.	Fairly Good.	Fair.
Regularity .. ..	.. ..	Good.	Very irregular.	Regular.	Slightly irregular.
Value above or below contract rate	.. ..	Rs. 35 on Apr./May Broach.	Rs. 25 on.	Rs. 35 on.	Rs. 5 on.
Basis .. ..	.. ..	Rs. 183.	Rs. 232.	Rs. 201.	Rs. 225.
Date of Valuation	.. ..	1st May 1934.	3-7-35.	20-1-36.	28-6-37.
Remarks .. ..	.. ..	....	....	....	....

* The reports for 1933-34 and 1935-36 onwards are made by the mill supplying the sample.

Table 11.—SPINNING TEST RESULTS FOR WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*							YARN TEST RESULTS.						TEMPERATURE, (°F.)	RELATIVE HUMIDITY, (%)		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per Inch.	I.E.A.			BALISTICO.			Evenness Class.	Keps per yard.				Turns per Inch Actual.
															Counts Actual.	Strength (lbs)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.						
2251 Westerns	..	1919-21	30-1-31	20	10	12.0	8.0	0.1	10.4	9	106	9550	6.07	17.98	19.4	84.5	1029	10.0	138.0	2509	4	1.2	17.4	88	60	72
2251 Westerns	..	1923-21	1-5-31	21	..	..	..	..	..	32	176	9500	5.67	19.73	24.1	62.8	1513	24.2	100.8	2430	4	1.5	19.3	88	70	71
2251 Westerns	..	1932-31	1-5-31	30	..	..	..	..	..	17	153	9750	6.04	23.11	29.3	47.5	1392	29.3	84.2	2407	5	1.2	22.3	88	69	70
2710 Westerns	..	1931-35	21-6-35	20	10	12.5	6.8	0.1	21.4	10	106	9650	5.83	17.98	19.6	85.0	1006	19.7	130.4	2500	4	2.0	17.4	87	74	79
2710 Westerns	..	1934-35	20-6-35	24	..	..	..	..	..	14	179	9600	5.32	19.72	23.1	67.1	1550	23.0	107.2	2530	4	1.8	19.0	87	74	81
2710 Westerns	..	1971-75	20-6-25	30	..	..	..	..	..	30	151	9000	6.58	23.11	30.1	47.1	1418	20.4	87.2	2504	5	1.5	22.4	86	77	74
3151 Westerns	..	1935-36	23-4-36	20	10	9.1	7.9	0.4	16.6	31	193	9550	5.95	17.98	20.5	67.5	1384	20.0	137.8	2556	4	1.2	17.2	88	66	70
3151 Westerns	..	1935-36	22-4-36	21	..	..	..	..	..	55	176	9550	5.67	19.73	21.5	52.5	1286	23.8	105.2	2504	4	1.2	19.0	80	69	69
3151 Westerns	..	1935-36	23-4-36	30	..	..	..	..	..	26	142	8900	6.04	21.20	29.4	45.9	1349	29.1	83.2	2421	5	1.0	22.0	80	68	72
3630 Westerns	..	1930-37	6-7-37	20	10	15.8	14.8	0.3	28.4	10	102	9350	5.95	17.08	20.3	71.2	1445	20.1	113.0	2283	4	1.2	17.3	87	77	78
3630 Westerns	..	1930-37	7-7-37	24	..	..	..	..	..	18	177	9400	6.00	19.73	24.3	57.2	1390	23.8	99.2	2361	4	1.0	10.1	85	80	78

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for a bulk sample spun under mill conditions it would be less than shown here.

12.—MIRAJ COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2532	Miraj	Shedbal	1933-34
2750	Miraj	Shedbal	1934-35
3270	Miraj	Shedbal	1935-36
3687	Miraj	Shedbal	1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	MIRAJ.			
	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.
Cleanliness	Leafy.	Leafy.	Leafy.	Fairly leafy.
Feel	Soft silky.	Poorish feel.	Good.	Good.
Ginning and neppiness ..	Well-ginned.	Somewhat knotted.	Somewhat knotted.	Well-ginned.
Seeds	$\frac{1}{2}\%$ partly-ginned.	..	..	..
Card sliver	Clean.	Almost clean.	Almost clean.	Good ; a little leafy.
Card web	Even and nep-free.	Good.	Good.	Good ; nep-free.
Weight of 10 flat strips ..	15.5 grams.	16.3 grams.	15.0 grams.	20.0 grams.
Remarks .. .. .	..	..	..	..

(b) Yarn :—

	MIRAJ.			
	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Almost clean.	Almost clean.	Almost clean.	Fairly clean.
Evenness	Fairly even.	Even.	Even.	Even.
Neppiness	Free of nep.	Nep-free.	Practically free of nep.	Free of nep.
Slubbiness .. .. .	..	..	A little slubby.	..

3. Spinning Test Details and Results :—See Table 12 on page 115.

II.—GRADER'S REPORT* FOR SURAT COTTON.

SURAT.									
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	..	Broach.	F. G. M. G. Broach Hedge Contract No. 2.	Broach July/Aug. 1934.	Broach July/Aug. 1935.	April/May Broach 1936.	Broach April/May 1937.		
Class	..	..	Superfine.	Superfine.	Superfine.	Fine to S. Fine.	Fine to Superfine.		
Colour	..	..	Clean white.	White; bright.	White.	White to Creamy-white.	White.		
Staple Length	..	..	15/16" average.	31/32".	15/16".	Full 31/32".	15/16".		
Staple Strength	..	..	Good.	Good.	Very good.	..	Good.		
Regularity	..	..	Even.	Very regular.	Regular.	Regular.	Regular.		
Value above or below contract rate	..	..	Rs. 50 on.	Rs. 72 on.	Rs. 93 on.	Rs. 50 on.	Rs. 60 on.		
Basis	..	..	F. G. M. G. Broach Contract No. 2 April/May, Rs. 182.	Rs. 198.	Broach July/Aug. 1935.	Rs. 203.	Rs. 230.		
Date of Valuation	..	..	18-4-33.	30-5-34.	..	20-4-36.	4-5-37.		
Remarks	..	..	..	..	..	..	Contains little peppery leaf and yellow stains.		

* Report since 1932-33 is made by the Mill supplying the sample.

Table 13.—SPINNING TEST RESULTS FOR SURAT COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.).	RELATIVE HUMIDITY(%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per inch.	Lbs.			BALISTIC.			Evensness Class.	Keps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.		
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.							
1075	Surat.	1930-31	10-6-31	24	8	8.2	6.6	0.7	14.8	20	182	9800	5.91	19.73	23.7	63.2	1498	24.5	103.2	2528	4	0.7	18.7	92	69	85	
1075	Surat.	1930-31	10-6-31	30		..	..	..	..	40	158	9950	7.43	23.11	30.1	46.3	1394	30.5	81.8	2405	5	0.5	22.0	92	68	66
1747	Surat.	1932-33	28-4-33	24	10	6.4	7.4	0.5	13.8	68	178	9000	5.55	19.73	23.9	65.5	1505	24.2	100.0	2505	3	1.2	19.3	87	64	69	
1747	Surat.	1932-33	2-5-33	30		..	..	..	..	89	168	10500	6.89	23.11	30.3	42.7	1294	29.7	82.4	2447	4	2.0	22.6	89	67	66
2278	Surat.	1933-34	16-5-34	20	10	5.8	8.5	0.3	14.0	5	196	9600	5.91	17.98	20.2	85.9	1735	19.8	135.8	2689	3	1.0	17.1	89	67	69	
2278	Surat.	1933-34	16-5-34	24		..	..	..	..	27	178	9550	5.42	19.73	23.8	69.3	1656	23.9	108.2	2566	4	1.2	18.8	90	68	68
2278	Surat.	1933-34	16-5-34	30		..	..	..	..	13	162	9550	6.58	21.86	29.5	51.4	1516	29.0	87.6	2540	5	1.2	20.9	90	67	70
2752	Surat.	1934-35	24-6-35	20	10	6.6	7.9	0.2	14.1	0	195	9550	6.05	17.98	20.5	88.7	1818	29.4	140.4	2864	3	1.0	17.3	85	79	73	
2752	Surat.	1934-35	25-6-35	24		..	..	..	..	18	179	9550	5.45	19.73	23.6	73.7	1739	23.2	124.0	2877	4	1.2	18.9	86	72	70
2752	Surat.	1934-35	25-6-35	30		..	..	..	..	17	160	9000	6.71	21.86	29.7	52.4	1556	29.5	94.4	2785	4	1.5	20.8	87	73	72
3142	Surat.	1935-36	17-4-36	20	10	4.4	7.0	0.3	11.3	0	192	9300	6.95	17.98	20.5	78.8	1615	29.3	127.8	2594	3	1.2	17.3	88	70	70	
3142	Surat.	1935-36	16-4-36	24		..	..	..	..	14	174	9500	5.33	19.73	22.9	73.6	1683	22.8	116.2	2649	4	0.8	18.0	88	66	74
3142	Surat.	1935-36	16-4-36	30		..	..	..	..	17	144	8550	6.76	21.86	30.1	47.2	1421	30.8	86.2	2655	5	1.5	20.8	87	64	73
3577	Surat.	1936-37	22-4-37	20	10	6.6	8.2	0.3	14.5	5	191	9300	6.14	17.98	20.0	91.9	1838	29.1	134.4	2701	3	1.2	17.3	90	67	66	
3577	Surat.	1936-37	22-4-37	24		..	..	..	..	18	170	9400	5.31	19.73	24.2	70.2	1699	24.0	114.0	2786	3	1.5	19.0	90	68	66
3577	Surat.	1936-37	22-4-37	30		..	..	..	..	7	160	9450	6.67	21.86	30.0	51.7	1551	30.4	90.0	2786	4	1.2	20.9	91	67	65

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of ring— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

14.—NAVSARI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1076	Navsari	1930-31	11
1778	"	1932-33	20
3141	"	1935-36	11
3683	"	1936-37	11

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1930-31:—Porcupine, Crighton (once only), Hopper, Scutcher (3 times).

1932-33 :—As above but two passages in the Crighton.

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1932-33:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

					NAVSARI.			
					1930-31.	1932-33.	1935-36.	1936-37.
Colour	..	..	..	..	White ; Bright.	White ; very bright.	White ; Bright.	White.
Cleanliness	..	..	..	..	Fairly clean.	Fairly clean.	Clean.	A little leafy ; a trifle stained.
Feel	..	..	..	..	Good-bodied.	Silky and bodied.	Good.	Good bodied.
Ginning and Neppiness	..	..	..	..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	..	..	..	..	0.5% unginned.	....	....	....
Card Sliver	..	..	..	..	Clean ; silky.	Clean and full.	Clean.	Good.
Card Web	..	..	..	..	Very good.	Even and nep-free.	Even and nep-free.	Good ; a little neppy.
Weight of 10 flat strips	..	..	..	..	6.5 grams ; very light.	15.1 grams.	11.7 grams.	22.2 grams.
Remarks	..	..	..	..	8 lbs. sample.	....	....	....

(b) *Yarn* :—

					NAVSARI.			
					1930-31.	1932-33.	1935-36.	1936-37.
Cleanliness	..	..	..	..	Clean.	Clean.	Clean.	A little leafy.
Evenness	..	..	..	..	Even.	Fairly even.	Even in the lower counts.	Even.
Neppiness	..	..	..	..	Free of nep.	Free of nep.	Almost free of nep.	A little neppy.
Slubbiness	..	..	..	..	....	....	....	....
Remarks	..	..	..	..	....	....	....	....

3. *Spinning Test Details and Results* :—See Table 14 on page 120.

II.—GRADER'S REPORT FOR NAVSARI COTTON.

1930-31.										1932-33.*										1935-36.*										1936-37.									
Contract valued under										F.G.M.G. Broach Hedge Contract No. 2. Strict fine. Clean white. 1 1/2". Good. Good. Rs. 50 on. July/August Rs. 205. 29-5-33.										April/May Broach 1936. Fine to S. Fine. White to Creamy-white. Full 1". Regular. Rs. 55 on. Rs. 203. 20-4-36.										Broach July/Aug. 1937. Fine to superfine. White. 15/16". Good. Regular. Rs. 65 on. Rs. 207. 22-7-37.									
Class										Broach. Fine. White. 1 1/2". Fair. Fair. Rs. 90 on. Rs. 160. 10-6-31.																													
Colour																																							
Staple Length																																							
Staple Strength																																							
Regularity																																							
Value above or below contract rate																																							
Basis																																							
Date of Valuation																																							
Remarks																																							

* Reports for 1932-33 and 1935-36 are made by the mill supplying the sample.

Table 14.—SPINNING TEST RESULTS FOR NAVSARI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS. *						BALISTICO.						TEMPERATURE (° F.)	RELATIVE HUMIDITY (%)		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 Spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	L.S.A.			Counts-Work Product.			Reps per yard.	Turns per inch. Actual.				
														Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.						
1070 Navsari ..	1930-31	10-6-31	10-6-31	24	8	0.2	7.6	0.6	13.9	5	182	9800	5.81	10.73	23.1	66.6	1598	23.5	103.2	2425	4	1.5	10.1	92	67
1076 " ..	1930-31	10-6-31	10-6-31	30	..	..	..	..	..	36	153	9950	7.50	23.11	30.5	44.0	1342	30.6	80.4	2400	5	1.2	22.4	92	68
1778 Navsari ..	1932-33	24-5-33	24-5-33	21	10	7.5	8.3	0.4	15.5	55	179	9700	5.32	10.73	23.7	66.2	1569	23.4	110.6	2588	4	1.0	18.9	89	70
1778 " ..	1932-33	27-5-33	27-5-33	20	..	..	..	..	..	33	157	9700	6.84	23.11	30.0	45.3	1359	20.7	82.2	2441	5	1.5	22.3	90	67
3141 Navsari ..	1935-36	15-4-36	15-4-36	20	10	3.1	7.1	0.3	10.6	10	192	9350	5.85	17.08	10.9	87.8	1747	10.7	136.6	2601	3	1.0	17.5	90	71
3141 " ..	1935-36	15-4-36	15-4-36	24	..	..	..	..	..	23	177	9150	5.68	19.73	23.8	66.6	1685	23.6	112.0	2643	4	1.2	19.1	88	72
3141 " ..	1935-36	15-4-36	15-4-36	30	..	..	..	..	..	10	144	8700	7.14	21.86	20.5	47.9	1413	30.0	80.2	2676	5	1.2	21.4	89	74
3083 Navsari ..	1936-37	1-7-37	1-7-37	20	10	5.1	10.1	0.5	15.1	10	208	10200	6.07	17.08	19.9	96.7	1934	10.6	146.0	2905	3	2.0	17.3	88	78
3083 " ..	1936-37	2-7-37	2-7-37	24	..	..	..	..	..	32	193	10200	5.45	19.73	23.6	79.5	1876	24.0	120.0	2880	4	2.5	19.2	86	80
3083 " ..	1936-37	2-7-37	2-7-37	30	..	..	..	..	..	26	150	9150	6.36	21.86	20.1	59.1	1720	30.0	93.4	2802	4	2.8	21.1	87	84

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

15 (a).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1077	Tiruppur Cambodia	1930-31.
1748	Tiruppur Cambodia	1932-33.
2277	Tiruppur Cambodia	1933-34.
2753	Tiruppur Cambodia	1934-35.
3269	Tiruppur Cambodia	1935-36.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room* : Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). In 1930-31, it was passed only once thro' the Crighton.

1934-35 and 1935-36 : Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* : Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 : As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

	TIRUPPUR CAMBODIA.				
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.
Colour	Creamy-white to creamy.	Creamy-white ..	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.
Cleanliness	Fairly clean; occasional stain.	Clean	Fairly clean; occasionally stained.	Clean	Fairly clean; slightly stained.
Feel	Good-bodied ..	Good soft ..	Good smooth ..	Good bodied ..	Softish.
Ginning and Neppiness..	Well-ginned, but slightly neppy.	Well-ginned ..	Slightly knotted in ginning.	Fairly well-ginned.	A little knotted.
Seeds	Clean	Soft and clean ..	Almost clean ..	Clean and soft ..	Almost clean.
Card Sliver	A little neppy and cloudy.	A trifle both neppy and uneven.	Neppy	Somewhat neppy and uneven.	Somewhat neppy.
Weight of 10 flat strips	19.0 grams.	25.8 grams.	26.5 grams	28.3 grams	20.1 grams.
Remarks .. ..	..	..	Well-watered ..	..	Well-watered at the time of pressing.

(b) *Yarn* :—

	TIRUPPUR CAMBODIA.				
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.
Cleanliness	Fairly clean ..	Almost clean ..	Almost clean ..	Clean	A little leafy.
Evenness	Even	Even	Even	Even	Even.
Neppiness	A little neppy ..	A little neppy ..	Somewhat neppy.	Neppy	Neppy.
Slubbiness .. ..	..	..	Somewhat slubby.	..	Fairly slubby.
Remarks .. ..	..	..	..	..	..

3. *Spinning Test Details and Results.*—See Table 15 (a) on page 123.

II.—GRADER'S REPORT* FOR TIRUPPUR CAMBODIA COTTON.

TIRUPPUR CAMBODIA.						
1930-31.			1932-33.	1933-34.	1934-35.	1935-36.
Contract valued under	..	..	Broach.	Broach.	Broach.	Broach.
Class	..	..	Fine.	White; bright.	Good.	Fully good to fine.
Colour	..	..	Clean creamy-white.	Very clean.	White creamy.	Creamy.
Staple Length	..	..	31/32" average.	Full 31/32".	31/32".	Barely 31/32".
Staple Strength	..	..	Good.	Good.	Very good.	Good.
Regularity	..	..	Even.	Very even.	Regular.	Regular.
Value above or below contract rate	..	..	Rs. 60 on.	Rs. 70 on.	Rs. 88 on.	Rs. 45 on.
Basis	..	..	F. G. M. G. Broach Contract No. 2 April/May, Rs. 182.	Rs. 198.	Broach July/Aug. 1935.	Broach July/Aug. 1936.
Date of Valuation	..	..	18-4-33.	30-5-34.	..	15-7-36.
Remarks	..	..	Silky.	..	..	..

* Report since 1932-33 is made by the mill supplying the sample.

Table 15 (a)—SPINNING TEST RESULTS FOR TRUPPUR CAMBODIA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.					RING FRAME PARTICULARS. *					YARN TEST RESULTS.										TEMPERATURE (°C.)		RELATIVE HUMIDITY (%).
				Counts Nominal.	Weight of Sample (lbs.).	Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	I.M.A.			BALLISTICS.			Reynolds Class.	Keps per yard.	Turns per Inch actual.	Spiraling Room.	Spiraling Room.	
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.						
1077	Cambodia	1930-31	11-6-31	24	8	6.0	10.5	0.6	16.4	5	181	9760	0.18	10.73	25.2	56.5	1424	24.0	98.2	2445	4	3.2	18.0	92	60	68
1077	Cambodia	1930-31	11-6-31	30		..	..	..	..	16	164	9800	7.85	23.11	29.6	47.0	1409	30.3	84.8	2609	5	3.2	22.3	91	64	63
1748	Cambodia	1932-33	28-4-33	24	10	5.3	12.0	0.5	17.1	45	178	9600	5.60	10.73	23.0	50.5	1422	23.8	105.8	2518	3	2.0	10.0	87	64	69
1748	Cambodia	1932-33	2-5-33	30		..	..	..	..	70	168	10500	7.06	23.11	30.1	43.1	1297	30.4	70.0	2402	4	3.5	22.0	89	67	66
2277	Cambodia	1933-34	16-5-34	20	10	5.3	13.2	0.3	18.1	10	190	9600	6.10	17.08	20.0	82.2	1614	20.0	132.0	2640	3	3.8	17.2	89	67	70
2277	Cambodia	1933-34	16-5-34	24		..	..	..	..	0	178	9560	6.22	10.73	23.0	67.0	1601	24.4	103.8	2533	4	1.0	18.0	90	68	70
2277	Cambodia	1933-34	16-5-34	30		..	..	..	..	13	162	9550	7.03	21.80	30.7	45.0	1409	30.3	83.2	2491	5	3.2	21.2	90	67	69
2753	Cambodia	1934-35	24-6-35	20	10	6.2	14.2	0.4	19.8	5	194	9500	6.10	17.08	10.7	90.2	1695	19.8	137.8	2728	3	5.0	17.4	83	75	69
2753	Cambodia	1934-35	26-6-35	24		..	..	..	..	27	180	9650	5.33	10.73	23.7	72.8	1725	23.7	116.0	2710	4	5.8	19.1	87	70	74
2753	Cambodia	1934-35	26-6-35	30		..	..	..	..	23	161	9450	6.71	21.80	20.2	55.4	1618	20.7	90.6	2691	4	6.0	21.0	87	70	74
3269	Cambodia	1935-36	11-7-36	20	10	7.0	10.3	0.3	16.9	21	189	9500	6.22	17.08	10.9	89.5	1781	19.8	127.8	2530	3	1.8	17.2	87	71	72
3269	Cambodia	1935-36	15-7-36	24		..	..	..	..	9	174	9650	5.87	10.73	23.7	60.6	1650	23.0	105.0	2510	4	4.2	19.1	88	71	73
3269	Cambodia	1935-36	15-7-36	30		..	..	..	..	17	156	9550	7.03	21.80	30.0	51.1	1533	20.7	84.0	2513	5	5.0	21.1	87	73	73

* Diameter of ring frame front roller—1". Diameter of rings—1.1".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

15 (b).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2373	Cambodia	Tiruppur	1933-34
2745	Cambodia	Tiruppur	1934-35
3149	Cambodia	Tiruppur	1935-36
3684	Cambodia	Tiruppur	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

	TIRUPPUR CAMBODIA.			
	1933-34.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; brightish.	Creamy.
Cleanliness	Clean; somewhat stained.	Clean with occasional stains.	Clean.	Fairly clean; a little stained.
Feel	Good smooth.	Good smooth.	Good smooth.	Soft.
Ginning and neppiness ..	Slightly knotted.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned.
Seeds .. ..	..	..	..	..
Card Sliver	Clean and soft.	Clean.	Clean.	Clean.
Card Web	Cloudy and neppy.	Slightly neppy and uneven.	Slightly neppy.	Very neppy; cloudy.
Weight of 10 flat strips ..	24.7 grams.	29.7 grams.	20.3 grams.	37.4 grams.
Remarks .. ..	..	..	..	Abnormally heavy strips.

(b) *Yarn* :—

	TIRUPPUR CAMBODIA.			
	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	Almost clean.	Almost clean.	A little leafy.	A little leafy.
Evenness	Even in the two lower counts.	Fairly even.	Fairly even.	Fairly even.
Neppiness	Neppy.	Neppy.	Neppy.	Very neppy.
Slubbiness	Slubby.	A little slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 15 (b) on page 125.

II.—GRADER'S REPORT* FOR TIRUPPUR CAMBODIA.

TIRUPPUR CAMBODIA.																										
1933-34.*							1934-35.							1935-36.*							1936-37.					
Contract valued under							Broach.							Broach April/May.							July/Aug. Broach.					
Class ..							.. Fully good.							Fine.							Fine.					
Colour ..							.. Creamy.							Creamy-white.							Creamy-white.					
Staple Length ..							.. 31/32 inch.							15/16 inch.							15/16 inch.					
Staple Strength ..							.. Good.							Good.							Good.					
Regularity ..							.. Rs. 60 on.							Regular.							Regular.					
Value above or below contract rate ..							.. Rs. 203 July/Aug. Broach.							Rs. 65 on.							Rs. 75 on.					
Basis ..							.. Rs. 232.							20-4-36.							Rs. 225.					
Date of Valuation ..							.. 9-7-34.							..							28-6-37.					
Remarks ..							..							..							..

* The reports for 1933-34 and 1935-36 onwards are compiled by the mill supplying the sample.

Table 15 (b).—SPINNING TEST RESULTS FOR TIRUPPUR CAMBODIA.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs)	WASTE PROPORTIONS.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE, °F.	RELATIVE HUMIDITY, (%)					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle speed R.P.M.	Draft.	Turns per Inch.	L.F.A.			Twines per yard.	Turns per Inch Actual.			Spinning Room.	Testing Room.			
															Count-Strangth Product.	Count-Work Product.	Work of Machine (Inch-lb.)									
2373	Tiruppur Cambodia.	1933-34	9-7-34	20	10	6.6	12.5	0.2	18.4	5	200	9800	6.25	17.08	19.6	85.6	1078	29.0	123.8	2476	3	3.8	17.0	86	76	75
2373	Tiruppur Cambodia.	1933-34	10-7-34	24	10	..	..	..	..	14	179	9600	5.54	19.73	24.3	66.3	1011	24.9	101.6	2530	4	3.2	18.7	87	74	79
2373	Tiruppur Cambodia.	1933-34	10-7-34	30	10	..	..	..	..	30	160	9600	6.76	21.86	29.3	49.6	1453	30.1	80.6	2426	5	3.5	20.8	87	77	78
2745	Tiruppur Cambodia.	1934-35	13-6-35	20	10	6.7	14.9	0.4	20.0	26	108	9800	6.10	17.08	21.2	80.3	1702	21.3	122.2	2603	4	4.2	17.3	90	68	92
2745	Tiruppur Cambodia.	1934-35	15-6-35	24	10	..	..	..	..	11	182	9800	5.55	19.73	24.1	70.2	1692	23.9	113.2	2705	4	5.0	19.0	89	70	80
2745	Tiruppur Cambodia.	1934-35	15-6-35	30	10	..	..	..	..	13	166	9800	6.04	21.86	29.6	52.7	1600	30.0	90.8	2724	5	5.2	21.2	90	68	80
3149	Tiruppur Cambodia.	1935-36	17-4-36	20	10	4.5	9.7	0.3	14.1	10	104	9300	6.07	17.08	20.2	89.0	1708	19.8	147.0	2922	3	4.2	17.4	89	67	72
3149	Tiruppur Cambodia.	1935-36	20-4-36	24	10	..	..	..	..	18	174	9350	5.53	19.73	21.7	68.1	1689	24.8	113.0	2802	4	4.5	19.1	89	66	72
3149	Tiruppur Cambodia.	1935-36	21-4-36	30	10	..	..	..	..	7	162	9600	6.80	21.86	29.8	52.2	1550	29.9	93.1	2793	5	4.5	21.5	88	66	72
3084	Tiruppur Cambodia.	1936-37	3-7-37	20	10	5.8	19.3	0.4	24.2	10	210	10200	5.98	17.08	20.6	90.5	1810	20.3	130.0	2639	1	8.2	17.2	85	70	70
3084	Tiruppur Cambodia.	1936-37	3-7-37	24	10	..	..	..	..	5	193	10200	5.01	19.73	23.7	71.7	1609	23.7	108.8	2379	4	7.2	18.8	87	76	82
3084	Tiruppur Cambodia.	1936-37	3-7-37	30	10	..	..	..	..	10	160	9400	6.07	21.86	29.7	54.2	1610	29.0	91.0	2639	5	7.0	20.7	87	77	86

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

* Diameter of ring frame front roller—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for a bulk sample spun under mill conditions it would be less than shown here.

16.—HUBLI KUMPTA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
1020	Hubli Kumpta	1930-31	12	2692	Hubli Kumpta	1934-35	11
1332	"	1931-32	12	3160	"	1935-36	11
1742	"	1932-33	12	3573	"	1936-37	11
2229	"	1933-34	11				

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—Upto 1934-35 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		HUBLI KUMPTA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	.. ..	Creamy-white.	Dullish creamy-white.	White to creamy-white.	Dullish-white to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white to white.
Cleanliness	.. ..	Slightly stained, leafy.	..	Dull; leafy.	Leafy (fine leaf).	Leafy.	Leafy.	Fairly leafy.
Feel	.. ..	Good.	..	Good.	Good.	Good.	Good.	Fairly good.
Ginning and Neppiness.	.. ..	Well-ginned.	Somewhat knotted.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.
Seeds	.. ..	..	0.8% ginned and unginned besides undeveloped seeds.	..	..	..	..	..
Card Sliver	.. ..	Fairly clean.	A little leafy.	Almost clean.	Clean.	Clean.	Almost clean.	Clean.
Card Web	.. ..	Good.	Good.	Good.	Even; neppy.	Good.	Good.	Good.
Weight of 10 flat strips.	.. ..	10.7 grams.	14.7 grams.	13.9 grams.	14.7 grams.	13.1 grams.	11.6 grams.	12.5 grams.
Remarks	.. ..	Fully pressed.	..	..	..	..	..	..

(b) Yarn :—

		HUBLI KUMPTA.						
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness	.. ..	Clean.	Almost clean.	Clean.	Almost clean.	Clean.	Clean.	A little leafy.
Evenness	.. ..	Even.	Even.	Fairly even.	Even.	Fairly even.	Even.	Even.
Neppiness	.. ..	Practically nep-free.	Nep-free.	Free of nep.	Practically nep-free.	Almost free of nep.	Almost free of nep.	Almost free of nep.
Slubbiness	.. ..	..	..	..	..	..	..	..
Remarks	.. ..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results.*—See Table 16 on page 128.

II.—GRADER'S REPORT* FOR HUBLI KUMPTA COTTON.

HUBLI KUMPTA.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	.. ..	Kumpta.	Broach Kumpta.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	
Class	.. ..	Fully good.	Fully good.	Fully good.	Fully good.	Strictly fully good.	Fully good.	Fully good.	F. G. M. G. Broach April/May 1937.
Colour	.. ..	Slight tinge.	Slight cream.	Brownish-white.	Brownish-white.	Rich Brownish white.	Whitish brown.	Whitish brown.	Fully good.
Staple Length	.. ..	15/16".	29/32".	7/8".	7/8"	29/32".	3/4".	29/32".	Whitish brown.
Strength	.. ..	Fair.	Fair.	Fair.	Fair.	Good.	Poor.	Good.	Good.
Regularity	.. ..	Fair.	Fair.	Regular.	Regular.	Regular.	Irregular.	Good.	Good.
Value above or below contract rate	.. ..	Pass.	Rs. 30 on.	Rs. 22 on.	Rs. 30 on.	Rs. 60 to Rs. 65 above.	Rs. 30 above.	Rs. 25 above.	Rs. 250.
Basis	.. ..	Rs. 250.	Rs. 160.	Rs. 177.	Rs. 105.	Rs. 215.	Rs. 200.	Rs. 250.	Rs. 250.
Date of Valuation	.. ..	15-4-31.	15-5-32.	18-1-33.	9-1-34.	6-3-35.	29-1-36.	6-1-37.	6-1-37.
Remarks	.. ..	..	..	..	..	..	..	..	..

* Report since 1933-34 is made by the Mill supplying the sample.

Table 16.—SPINNING TEST RESULTS FOR HUBLI KUMPTA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY. (%)						
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller speed R. P. M.	Spindle speed R. P. M.	Draft.	Turns per inch.	LEA.			Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.		Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.	Neps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.
															DRA.														
1020	Hubli Kumpta.	1930-31	10-4-31	20	10	11.9	8.2	0.6	10.6	10	196	9700	6.19	17.98	19.5	81.5	1618	19.7	117.0	2305	3	1.7	17.1	87	84	83			
1020	Hubli Kumpta.	1930-31	11-4-31	24		..	..	..	..	16	180	9700	5.81	19.73	23.3	66.0	1559	23.5	100.4	2359	4	2.0	18.9	89	82	83
1020	Hubli Kumpta.	1930-31	11-4-31	30		..	..	..	..	30	161	9700	7.30	23.11	30.2	46.8	1413	29.8	82.0	2461	5	1.5	22.0	88	66	60
1332	Hubli Kumpta.	1931-32	11-5-32	20	10	14.1	8.6	0.6	21.0	55	186	9200	5.83	17.98	20.4	66.8	1393	19.9	110.6	2201	3	0.8	17.4	89	67	63			
1332	Hubli Kumpta.	1931-32	12-5-32	24		..	..	..	..	36	173	9300	5.08	19.73	21.0	56.0	1311	24.2	95.0	2314	3	1.0	19.0	89	66	66
1332	Hubli Kumpta.	1931-32	12-5-32	30		..	..	..	..	40	136	8650	7.14	23.11	29.5	41.4	1221	30.1	77.2	2324	5	1.2	22.3	90	67	67
1742	Hubli Kumpta.	1932-33	22-4-33	24	10	12.3	8.7	0.6	20.5	75	172	9350	5.87	19.73	23.7	59.4	1408	23.1	98.4	2303	4	0.8	19.2	89	65	66			
1742	Hubli Kumpta.	1932-33	24-4-33	30		..	..	..	..	79	138	8850	7.34	23.11	30.1	40.9	1231	30.1	79.6	2396	5	1.5	22.2	89	63	63
2229	Hubli Kumpta.	1933-34	13-4-34	20	10	11.1	9.4	0.4	19.8	31	189	9200	5.81	17.98	20.0	85.1	1708	20.0	123.6	2472	3	1.2	17.3	88	67	70			
2229	Hubli Kumpta.	1933-34	14-4-34	24		..	..	..	..	95	170	9100	5.70	19.73	21.0	61.9	1558	21.3	102.6	2493	4	1.0	19.1	87	69	68
2229	Hubli Kumpta.	1933-34	16-4-34	30		..	..	..	..	43	150	9300	7.14	23.11	30.0	48.8	1461	29.7	84.0	2495	5	1.2	22.3	87	67	69
2692	Hubli Kumpta.	1934-35	11-3-35	20	10	11.1	7.7	0.3	18.2	10	193	9300	6.19	17.98	20.4	90.0	1671	20.5	131.8	2702	3	1.2	17.3	81	66	68			
2692	Hubli Kumpta.	1934-35	12-3-35	24		..	..	..	..	4	188	10250	5.52	19.73	24.1	77.1	1858	24.3	110.4	2693	4	1.0	18.9	82	67	68
2692	Hubli Kumpta.	1934-35	12-3-35	30		..	..	..	..	7	162	10300	6.92	23.11	30.5	56.3	1717	30.9	99.4	2702	5	1.5	22.3	91	65	66
3160	Hubli Kumpta.	1935-36	27-4-36	20	10	9.9	7.3	0.2	16.7	10	192	9450	6.10	17.98	19.8	85.6	1695	20.0	114.4	2357	3	1.2	17.2	87	66	72			
3160	Hubli Kumpta.	1935-36	28-4-36	24		..	..	..	..	14	176	9600	5.43	19.73	24.0	64.0	1350	23.9	100.2	2395	4	1.5	18.9	87	65	71
3160	Hubli Kumpta.	1935-36	29-4-36	30		..	..	..	..	17	150	9600	6.71	23.26	29.9	53.5	1317	29.1	84.4	2491	4	1.2	22.2	87	65	70
3573	Hubli Kumpta.	1936-37	16-4-37	20	10	11.9	8.2	0.4	19.4	21	209	10150	5.93	17.98	20.2	89.3	1694	20.1	124.4	2500	3	0.8	17.1	90	67	66			
3573	Hubli Kumpta.	1936-37	16-4-37	24		..	..	..	..	18	190	10200	5.20	19.73	24.0	74.8	1795	24.1	105.6	2345	3	1.2	18.9	90	67	68
3573	Hubli Kumpta.	1936-37	17-4-37	30		..	..	..	..	23	160	9600	6.63	21.86	29.9	54.0	1598	29.9	88.2	2637	4	1.0	20.9	90	67	68

* Diameter of ring frame front roller: $\frac{1}{2}$ ". Diameter of rings: $\frac{1}{8}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

17.—HUBLI UPLAND COTTON.

These samples have been tested by arrangement with the Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
1021	Hubli Upland	1930-31	12	2230	Hubli Upland	1933-34	11
1333	"	1931-32	12	2763	"	1934-35	11
1743	"	1932-33	12	3161	"	1935-36	11

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 and 1935-36 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		HUBLI UPLAND.					
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Colour .. ..	..	Creamy-white; slightly bright.	Creamy-white.	White to creamy-white; fairly bright.	Creamy-white.	White to creamy-white.	Creamy-white.
Cleanliness .. ..	..	A little leafy.	Fairly leafy.	A little leafy.	A little leafy.	A little leafy.	Leafy.
Feel .. ..	..	Good softish.	Softish.	Good.	Poorish soft.	Good.	Softish.
Ginning and Neppiness	..	Knotted due to ginning.	A good deal knotted.	Nepped and knotted.	Well-ginned.	Somewhat knotted.	Somewhat knotted in ginning.
Seeds .. ..	..	..	A few undeveloped besides 0.9% partly ginned and clean seeds.	..	..	..	..
Card Sliver .. ..	..	Clean.	Fairly clean.	Almost clean.	Clean.	Clean.	Almost clean.
Card Web .. ..	..	A trifle neppy and cloudy.	Good.	A little neppy.	Cloudy.	Somewhat neppy.	Somewhat neppy.
Weight of 10 flat strips	..	18.3 grams.	18.5 grams.	20.9 grams.	19.0 grams.	31.3 grams.	15.8 grams.
Remarks .. ..	..	Fully pressed.	..	..	..	..	..

(b) Yarn :—

		HUBLI UPLAND.					
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Cleanliness .. ..	..	Fairly clean.	Fairly clean.	Clean.	Clean.	A little leafy.	Almost clean.
Evenness .. ..	..	Even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.
Neppiness .. ..	..	Almost nep-free	Almost nep-free	Almost free of nep.	Almost free of nep.	Neppy.	Almost free of nep.
Slubbiness .. ..	..	..	..	A trifle slubby.	..	..	..
Remarks .. ..	..	..	..	..	..	..	..

3. Spinning Test Details and Results.—See Table 17 on page 131.

II.—GRADER'S REPORT* FOR HUBLI UPLAND COTTON.

HUBLI UPLAND.					
		1930-31.	1931-32.	1932-33.	1933-34.
		1934-35.	1935-36.		
Contract valued under	..	Kumpta.	Broach Kumpta.	F. G. M. G. Broach.	F. G. M. G. Broach.
Class	..	Fully good.	Better fully good.	Fine.	Aug. delivery.
Colour	..	Slight tinge.	White.	Dull white.	Barely fine.
Staple Length	..	7/8".	7/8".	3/4".	Pure white.
Strength	..	Fair.	Poor.	Weak.	27/32" to 28/32".
Regularity	..	Fair.	Fair.	Rather irregular.	Fairly strong.
Value above or below contract rate	..	Rs. 10 off.	Rs. 25 on.	Rs. 20 on.	Fairly regular.
Basis	..	Rs. 250.	Rs. 100.	Rs. 195.	Par to Rs. 5 on.
Date of Valuation	..	15-1-31.	10-5-32.	9-4-34.	Rs. 200.
Remarks	..	..	..	..	29-4-36.

* Report since 1933-34 is made by the Mill supplying the sample.

Table 17.—SPINNING TEST RESULTS FOR HUBLI UPLAND COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY. (%)			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Tenseness Class.				Neps per yard.	Turns per inch Actual.
1021	Hubli Upland..	1930-31.	10-4-31	20	10	0.1	10.1	0.7	18.8	10	196	9700	0.07	17.08	20.0	75.2	1501	19.5	123.2	2102	3	1.2	17.0	87	61	71
1021	Hubli Upland..	1930-31.	11-1-31	24		..	..	..	..	32	180	9700	5.08	19.73	23.3	61.0	1121	22.8	105.0	2394	4	2.2	18.9	89	62	70
1021	Hubli Upland..	1930-31.	11-4-31	30		..	..	..	..	57	161	9700	7.30	23.11	30.2	12.8	1293	29.3	82.0	2403	5	2.7	22.1	88	60	67
1333	Hubli Upland..	1931-32.	11-6-32	20	10	11.1	10.2	0.6	20.6	41	186	9200	5.95	17.98	20.2	58.8	1188	20.1	112.0	2231	4	1.5	17.1	89	67	67
1333	Hubli Upland..	1931-32.	12-5-32	24		..	..	..	..	72	173	9300	5.08	19.73	23.5	48.8	1147	21.5	90.4	2215	1	1.2	19.1	89	60	67
1743	Hubli Upland..	1932-33.	24-1-33	20	10	10.0	11.3	0.5	20.6	68	188	9350	5.08	17.98	19.9	68.1	1355	19.9	113.0	2240	4	1.8	17.4	86	64	66
1743	Hubli Upland..	1932-33.	24-1-33	24		..	..	..	..	91	173	9100	5.98	19.73	23.8	54.4	1295	24.1	94.6	2280	5	1.2	19.0	87	62	69
2230	Hubli Upland..	1933-34.	13-4-34	20	10	7.2	10.8	0.5	17.6	36	189	9200	5.83	17.98	19.7	62.8	1237	19.8	115.8	2293	4	1.5	17.3	88	67	69
2230	Hubli Upland..	1933-34.	14-4-34	24		..	..	..	..	161	170	9100	5.98	19.73	21.0	41.2	1001	24.1	94.0	2265	5	1.5	18.0	87	60	68
2763	Hubli Upland..	1934-35.	26-6-35	20	10	8.8	15.3	0.6	24.1	47	180	8730	5.81	17.98	19.4	61.1	1219	19.5	127.6	2188	1	3.2	17.2	88	70	78
2763	Hubli Upland..	1934-35.	27-6-35	24		..	..	..	..	68	166	8900	6.22	20.71	23.7	51.7	1225	23.2	105.6	2150	5	4.0	20.2	88	72	78
3161	Hubli Upland..	1935-36.	30-1-36	20	10	0.3	8.7	0.4	17.5	16	195	9550	6.07	17.98	20.1	66.6	1339	19.6	126.0	2170	1	1.0	17.2	88	68	70
3161	Hubli Upland..	1935-36.	29-1-36	24		..	..	..	..	41	175	9600	5.54	19.73	23.7	61.8	1228	23.7	101.2	2398	4	1.5	18.9	87	60	71
3161	Hubli Upland..	1935-36.	29-1-36	30		..	..	..	..	20	140	9150	6.89	21.26	29.8	40.9	1210	29.1	84.6	2462	5	1.2	22.2	80	67	69

* Diameter of ring frame front roller—7". Diameter of rings—11".

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

18.—KAMPALA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
2754	Kampala (African)	1934-35.
3266	Kampala („)	1935-36.
3578	Kampala („)	1936-37.

I. SPINNING TESTS.

1. Treatment.—

(a) *Blow-room*.—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). In 1934-35, the sample was not passed through Horizontal cleaner and was passed through the Scutcher three times; otherwise its treatment was the same as for the 1935-36 and 1936-37 samples.

(b) *Card-room*.—Card, Drawing (2 heads), Slubber, Inter, Rove and spun from single hank roving on Ring Frame No. 3.

2. Spinning Master's Report:—

(a) Cotton:—

	KAMPALA.		
	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white.
Cleanliness	Very clean.	Very clean.	Clean.
Feel	Good silky.	Smooth and bodied.	Good soft.
Ginning and Noppiness	Well-ginned.	Somewhat knotted and strung.	Well-ginned.
Seeds .. .. .	..	..	..
Card sliver	Clean and silky.	Clean and silky.	Clean; silky.
Card web	Even and nep-free.	Good.	Good.
Weight of 10 flat strips	22.5 grams.	21.8 grams.	17.1 grams.
Remarks .. .. .	..	..	..

(b) Yarn:—

	KAMPALA.		
	1934-35.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.
Evenness	Even.	Even.	Even.
Noppiness	Somewhat neppy—small neps.	A little neppy.	Almost free of nep.
Slubbiness .. .. .	..	..	..

3. Spinning Test Details and Results.—See Table 18 on page 133.

II—GRADER'S REPORT FOR KAMPALA COTTON.

KAMPALA.									
1931-35.					1935-36.				
Contract valued under	..	..	..	..	Broach.	..	..	..	1936-37.
Class ..	..	..	..	..	Fine but little stained.	..	..	..	Broach April/May 1937.
Colour ..	..	..	..	..	Creamy-white; silky.	..	..	..	Fully good to fine.
Staple Length ..	..	..	..	..	11 1/2".	..	..	..	White creamy.
Staple Strength ..	..	..	..	..	Good.	..	..	..	1 1/2".
Regularity ..	..	..	..	..	Regular.	..	..	..	Good.
Value above or below contract rate	..	..	..	..	Rs. 120/- on.	..	..	..	Regular.
Basis ..	..	..	..	..	Broach July/August 1935.	..	..	..	Rs. 190/- on.
Date of Valuation ..	..	..	..	..	..	..	..	..	Rs. 230.
Remarks ..	..	..	..	..	..	..	..	..	1-5-37.

Table 18.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.				LIMITS-ALLOWED (P.E.).		RELATIVE HUMIDITY (%).
				Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed H.P.M.	Spiral Speed H.P.M.	Draft.	Turns per inch.	Cumulative Actual.	Butterfly (lbs.).	Cumulative Product.	Count of Hanks (lbs.).	Cumulative Product.	
				Counts Nominal.	Weight of Sample (lbs.).	Counts Nominal.	Weight of Sample (lbs.).	Counts Nominal.	Weight of Sample (lbs.).	Counts Nominal.	Weight of Sample (lbs.).	Counts Nominal.	Weight of Sample (lbs.).	Counts Nominal.	Weight of Sample (lbs.).	Counts Nominal.	Weight of Sample (lbs.).	
2754	Kampala..	1934-35	27-6-35	20	10	20	10	20	10	20	10	20	10	20	10	20	10	76
2754	Kampala..	1934-35	1-7-35	30	10	30	10	30	10	30	10	30	10	30	10	30	10	76
2754	Kampala..	1934-35	20-6-35	40	10	40	10	40	10	40	10	40	10	40	10	40	10	82
3265	Kampala..	1935-36	7-7-36	20	10	20	10	20	10	20	10	20	10	20	10	20	10	80
3266	Kampala..	1935-36	10-7-36	30	10	30	10	30	10	30	10	30	10	30	10	30	10	70
3266	Kampala..	1935-36	11-7-36	40	10	40	10	40	10	40	10	40	10	40	10	40	10	72
3578	Kampala..	1936-37	23-4-37	20	10	20	10	20	10	20	10	20	10	20	10	20	10	63
3578	Kampala..	1936-37	24-4-37	30	10	30	10	30	10	30	10	30	10	30	10	30	10	63
3578	Kampala..	1936-37	26-4-37	40	10	40	10	40	10	40	10	40	10	40	10	40	10	66

* Diameter of ring frame front roller—1 1/2". Diameter of ring—11".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

19.—AFRICAN BUSOGA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1749	African Busoga	1932-33
2755	African Busoga	1934-35
3267	African Busoga	1935-36
3579	African Busoga	1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1932-33 Sample :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). The 1934-35 sample was not passed thro' the Horizontal cleaner and was passed through the Scutcher three times ; otherwise its treatment was the same as for the 1935-36 sample.

(b) *Card-room*.—1932-33 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) *Cotton* :—

	AFRICAN BUSOGA.			
	1932-33.	1934-35.	1935-36.	1936-37.
Colour	White to creamy-white.	White to creamy-white ; bright.	White to creamy-white ; brightish.	White to creamy-white ; bright.
Cleanliness	Bright ; very clean.	Clean.	Clean.	Fairly clean.
Feel	Soft silky.	Silky.	Soft silky.	Soft silky.
Ginning and neppiness ..	Well-ginned.	Somewhat knotted.	Slightly knotted in ginning.	Well-ginned.
Seeds .. .. .	..	..	..	..
Card sliver	Clean.	Clean.	Clean.	Clean soft.
Card web	Good.	Fairly neppy.	Somewhat cloudy and neppy.	Fairly good ; a trifle neppy.
Weight of 10 flat strips ..	18.2 grams.	30.3 grams.	24.6 grams.	..
Remarks .. .. .	..	Card sliver has a poorish soft and silky feel.	Fibres are irregular in length.	..

(b) *Yarn* :—

	AFRICAN BUSOGA.			
	1932-33.	1934-35.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.	Clean.
Evenness	Even.	Even.	Even.	Even.
Neppiness	A trifle neppy.	Neppy.	Somewhat neppy.	Free of nep.
Slubbiness .. .. .	..	..	Occasionally slubby.	..
Remarks .. .. .	..	..	..	..

3. *Spinning Test Details and Results*.—See Table 19 on page 135.

20.—JINJA COTTON.

These samples have been tested by arrangement with the Bombay Mill-owners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
3268	Jinja (African).	1935-36.
3580	Jinja (African).	1936-37.

I. SPINNING TESTS.

1. Treatment :—

- (a) *Blow-room*.—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).
- (b) *Card-room*.—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3.

2. Spinning Master's Report.

(a) Cotton :—

	JINJA (AFRICAN).	
	1935-36.	1936-37.
Colour.	White to creamy-white ; bright.	White to creamy-white ; bright.
Cleanliness.	Fairly clean.	Clean.
Feel.	Soft smooth.	Good soft.
Ginning and Neppiness.	A good deal knotted in ginning.	Fair.
Seeds.	..	..
Card sliver.	Clean, soft and silky.	Soft silky.
Card web.	A little neppy and cloudy.	Fairly good ; nep free.
Weight of 10 flat strips.	31.1 grams.	16.3 grams.
Remarks.	..	Good cling.

(b) Yarn :—

	JINJA (AFRICAN).	
	1935-36.	1936-37.
Cleanliness.	Clean.	Clean.
Evenness.	Even.	Even.
Neppiness.	Neppy.	Almost free of nep.
Slubbiness.	A little slubby.	

3. Spinning Test Details and Results :—See Table 20 on page 137.

II.—GRADER'S REPORT FOR JINJA (AFRICAN) COTTON.

JINJA (AFRICAN).									
1935-36.					1936-37.				
Contract valued under.					Broach.				
Class.					Fully good to fine.				
Colour.					Creamy.				
Staple Length.					1½"				
Staple Strength.					Good.				
Regularity.					Irregular.				
Value above or below Contract rate.					Rs. 185 on.				
Basis.					Broach April/May 1937, Rs. 230.				
Date of Valuation.					4-5-37.				
Remarks.					..				

Table 20.—SPINNING TEST RESULTS FOR JINJA (AFRICAN) COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts of Sample (Nominal).	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING SPINNING PARTICULARS* ;						YARN TEST RESULTS.										TEMPERATURE ATONE (°F.).	RELATIVE HUMIDITY (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.).	Count-Work Product.	Kewness Class.	Meps per yard.	Turns per Inch Actual.	Spinning Room.	Testing Room.			
3268	Jinja (African).	1935-36	8-7-36	20	10	6.2	17.5	0.4	22.0	21	206	10300	6.07	17.08	20.6	98.0	2037	20.7	172.0	3560	3	3.5	17.1	86	76	70		
3269	Jinja (African).	1935-36	8-7-36	30	..	..	..	..	..	0	170	10500	6.53	21.86	30.4	66.0	2006	30.1	108.0	3251	4	4.2	20.0	87	73	74
3268	Jinja (African).	1935-36	9-7-36	40	..	..	..	..	..	10	147	10450	0.07	25.28	40.5	42.6	1725	40.9	70.6	3256	5	4.0	24.1	86	73	72
3580	Jinja (African).	1936-37	28-4-37	20	10	5.2	10.1	0.3	15.0	0	220	10100	5.81	10.85	20.5	113.7	2331	20.4	181.0	3002	2	1.0	16.3	90	68	07		
3580	Jinja (African).	1936-37	28-4-37	30	..	..	..	..	..	3	182	10250	5.05	20.74	28.3	76.3	2159	28.3	118.0	3350	4	1.5	10.9	89	60	06
3580	Jinja (African).	1936-37	29-4-37	40	..	..	..	..	..	7	146	9500	8.30	23.79	39.6	46.0	1806	40.1	80.6	3250	5	1.0	22.0	89	09	07

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

JAGADIA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1010	Jagadia	1930-31
1317	Jagadia	1931-32
1779	Jagadia	1932-33
2375	Jagadia	1933-34
2124	Jagadia	1935-36

TECHNOLOGICAL REPORTS

ON

COTTONS SUPPLIED BY

THE AHMEDABAD MILLOWNERS' ASSOCIATION.

The samples supplied through this Association are restricted to only three cottons, *viz.*, Jagadia, Bawla and Kadi. They also represent early arrivals of the crop in each season. The valuation reports of these samples were also made by the Grader (Major Ellis Jones) upto 1931-32 and thereafter the mills supplying the samples were requested to send their own valuation reports.

	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Colour	White; bright.	White.	White to creamy-white; bright.	White; bright.	White; bright.	White to creamy-white; bright.
Cleanliness	A little leafy.	Fairly clean.	Fairly clean.	Fairly clean.	Clean.	Some leaf; a trifle stained.
Feel	Soft and silky.	Soft silky.	Good soft.	Good smooth.	Smooth bodied.	Soft.
Ginning and Neppiness	Very well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds			1.1 per cent.			
Card Sliver	Clean.	Almost clean.	Almost clean, soft and full.	Almost clean.	Clean.	Fairly clean.
Card Web	First class.	Even and free of nep.	Even and nep-free.	Good.	Even and nep-free.	Fair; a trifle neppy.
Weight of 10 flat strips.	11.2 grams.	15.2 grams.	17.8 grams.	22.6 grams.	14.0 grams.	11.6 grams.
Remarks	Staple regular in length and of good strength.					

(b) Yarn :—

	JAGADIA.					
	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.	Almost clean.	Clean.	Almost clean.
Evenness	Even.	Fairly even.	Fairly even.	Even.	Even.	Even.
Neppiness	Practically free of nep.	Almost free of nep.	Fairly free of nep.	Almost free of nep.	Almost free of nep.	Slightly neppy.
Slubbiness						
Remarks						

Spinning Test Details and Results.—See Table 1. on page 140.

II.—GRADER'S REPORT* FOR JAGADIA COTTON.

	1930-31.	1931-32	1932-33.	1933-34.	1935-36.	1936-37.
Contract valued under ..	.. Broach.	.. Broach.	.. Broach.	.. Broach.	.. Broach.	.. Broach.
Mass ..	.. Fine.	.. Fine.	.. Fine.	.. Fine.	.. Fine.	.. Fine.
Colour ..	.. White.	.. White.	.. Creamy-white.	.. Creamy-white.	.. White.	.. White.
Staple Length ..	.. 1 1/16 inch.	.. 1 inch.	.. 31/32 inch.	.. 1 inch.	.. 1 inch.	.. 1 1/32 inch.
Staple Strength ..	.. Fair.	.. Fair.	.. Fair.	.. Good.	.. Fair.	.. Good.
Regularity ..	.. Fair.	.. Fair.	.. Fair.	.. Fair.	.. Fair.	.. Fair.
Value above or below Contract rate ..	.. Rs. 65-70 on.	.. Rs. 50 on.	.. Rs. 19-8 on.	.. Rs. 48 on.	.. Rs. 32 on.	.. Rs. 26-0-6.
Basis ..	.. Rs. 205.	.. Rs. 170.	.. Rs. 172-8-0.	.. Rs. 202.	.. Rs. 196.	.. Rs. 226-4-0.
Date of Valuation ..	.. 26-3-31.	.. 5-5-32.	.. 3-4-33.	.. 16-3-34.	.. 19-2-36.	.. 20-1-37.
Remarks ..	.. ..	.. ..	.. Soft silky feel.	.. ..	.. ..	.. ..

* Report since 1932-33 is made by the mill supplying the sample.

Table 3.—SPINNING TEST RESULTS FOR JAGADIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*					YARN TEST RESULTS.					TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed R.P.M.	Draft.	Turns per Inch.	LEA.			DALLISTIC.							
															Counts Actual.	Strength (lbs.).	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.).	Count-Work Product.	Evenness Class.	Neeps per Yard.	Turns per Inch Actual.	Spinning Room.	Testing Room.
1010	Jagadia.	1930-31	25-5-31	20	8	7.1	8.0	0.5	15.3	25	196	9650	6.38	17.98	20.5	75.6	1550	20.4	113.2	2309	3	1.7	17.1	86	68
1010	Jagadia.	1930-31	26-5-31	30A						64	350	9100	7.08	21.86	30.1	42.3	1273	30.7	76.4	2345	4	1.5	21.1	86	65
1010.	Jagadia.	1930-31	25-5-31	30B						28	156	9900	7.29	23.11	30.2	45.6	1377	30.4	78.4	2384	4	2.0	22.0	86	67
1317	Jagadia.	1931-32	3-5-32	24	10	8.8	8.4	0.6	16.0	40	178	9650	6.50	19.73	24.7	52.0	1284	24.4	94.0	2294	4	1.2	19.3	88	65
1317	Jagadia.	1931-32	4-5-32	30B						53	152	9700	6.86	23.11	30.1	40.8	1228	30.2	78.8	2380	5	2.2	22.2	90	66
1779	Jagadia.	1932-33	24-5-33	24	10	9.4	9.3	0.6	18.3	32	179	9700	5.33	19.73	23.6	65.7	1551	24.0	104.0	2406	4	1.5	18.9	89	69
1779	Jagadia.	1932-33	24-5-33	30A						99	155	9400	6.58	21.86	29.1	47.8	1391	20.0	86.4	2506	5	2.0	21.1	90	68
1779	Jagadia.	1932-33	25-5-33	30B						83	160	9700	6.76	23.11	29.3	48.1	1418	20.5	86.4	2519	5	2.5	22.3	96	70
2375	Jagadia.	1933-34	10-7-34	20	10	10.0	11.2	0.5	20.5	36	196	9600	5.93	17.98	20.3	62.6	1271	10.8	112.6	2229	3	1.5	17.1	87	76
2375	Jagadia.	1933-34	11-7-34	24A						86	170	9150	6.10	19.73	24.0	49.1	1186	24.0	91.4	2191	4	1.8	19.0	86	74
2375	Jagadia.	1933-34	11-7-34	24B						73	177	9900	6.10	20.74	24.1	51.3	1230	23.6	94.8	2237	4	1.5	20.0	86	78
3164	Jagadia.	1935-36	15-5-36	20	10	5.3	8.1	0.3	13.3	10	193	9650	5.83	17.98	19.9	74.4	1481	20.6	113.6	2340	3	1.0	17.3	88	70
3164	Jagadia.	1935-36	4-5-36	24						18	174	9350	5.33	19.73	23.3	61.3	1428	23.5	101.8	2463	4	1.2	19.1	88	70
3164	Jagadia.	1935-36	4-5-36	30						20	144	8850	6.45	21.86	20.6	41.2	1220	20.8	80.6	2402	4	1.0	20.8	87	70
3623	Jagadia.	1936-37	21-5-37	20	10	6.0	8.1	0.4	14.4	0	210	10250	5.93	17.93	20.2	89.2	1892	20.0	139.4	2788	3	2.2	17.2	90	66
3623	Jagadia.	1936-37	22-5-37	24						14	186	10200	5.21	19.73	21.8	73.0	1752	23.8	116.8	2780	3	2.8	19.1	90	66
5623	Jagadia.	1936-37	22-5-37	30						23	160	9600	6.58	21.86	29.7	54.2	1610	20.2	91.6	2976	5	2.0	21.1	89	66

* Diameter of ring frame front roller—7". Diameter of rings—14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

2.—BAWLA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton	Season.	Sample No.	Cotton.	Season.
1011	Bawla ..	1930-31	3030	Bawla ..	1936-37.
2376	Bawla ..	1933-34			

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	BAWLA.		
	1930 31.	1933 34.	1936 37.
Colour	White; bright.	White to creamy-white; bright.	White to creamy white, bright.
Cleanliness	A trifle leafy.	A little leafy with occasional stains.	A little leafy; a little stained
Feel .. .	Good	Good smooth.	Good.
Ginning and Neppiness	Very well ginned.	Well ginned	Well ginned
Seeds	1% unginned.	..	..
Card sliver	Clean	Almost clean.	Good, almost clean
Card web .. .	Very good	Full.	Good; nep free
Weight of 10 flat strips	9.9 grams	19.2 grams.	15.0 grams.
Remarks .. .. .	..	..	..

(b) Yarn :—

	BAWLA.		
	1930 31.	1933-34	1936 37.
Cleanliness	Clean	A little leafy.	Slightly leafy.
Evenness	Even	Even in 20s only	Even
Neppiness	Almost free of nep	A little neppy.	Fairly free of nep.
Slabbiness .. .. .	..	..	..

3. Spinning Test Details and Results :—See Table 2 on page 142.

II.—GRADERS' REPORT * FOR BAWLA COTTON.

II.—GRADERS' REPORT * FOR BAWLA COTTON.				
BAWLA.				
1930-31.		1933-34.		1936-37.
Contract valued under	Broach.	Broach.	Broach.	Broach.
Class	Fine.	Fine.	Fine.	Fine.
Colour	White.	White.	Shade dull white.	Shade dull white.
Staple Length	One inch.	15/16 inch.	15/16 inch.	15/16 inch.
Staple Strength	Fair.	Fair.	Fair.	Fair.
Regularity	Fair.	Fair.	Fair.	Fair.
Value above or below Contract rate	Ra. 55 on.	Ra. 22 on.	Ra. 5-10-0 off.	Ra. 5-10-0 off.
Basis	Ra. 205.	Ra. 212.	Ra. 245.	Ra. 245.
Date of Valuation	26-3-31.	11-6-34.	23-3-37.	23-3-37.
Remarks	..	..	..	..

* Report since 1933-34 is made by the mill supplying the sample.

* Report since 1933-34 is made by the mill supplying the sample.

Table 2--SPINNING TEST RESULTS FOR BAWLA COTTON.																											
Sample No.	Cotton	Reason	Date of Spinning.	Counts Nominal.	Weight of Sample lbs.	WASTE PERCENTAGES.				RING FRAME PANTOLARS.*						YARN TEST RESULTS.										RELATIVE HUMIDITY (%).	RELATIVE HUMIDITY (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breaks per 100 spindles per hour.	Front Roller Speed R.P.M.	Spindle Speed,R.P.M.	Draft.	Turns per inch.	LEA.			BALANSTIO.			Readiness Class.	Keps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.		
															Counts Actual.	Strength (lbs.)	Count-Strength	Work of Hupleure (inch-lb.)	Count-Work Product.								
1011	Bawla	1930-31	26-3-31	20	8	7.6	8.0	0.3	16.7	23	182	8950	6.41	17.98	20.1	54.8	1101	19.8	103.8	2065	3	1.2	16.0	85	00	67	
1011	Bawla	1930-31	27-3-31	24	8	..	..	..	..	52	162	9500	6.38	20.74	24.7	42.3	1045	24.8	85.0	2108	4	1.7	20.1	86	67	60
2376	Bawla	1933-34	11-7-34	20	10	0.7	9.6	0.4	18.8	10	165	9500	6.00	17.08	20.3	83.3	1091	19.8	130.4	2701	3	2.5	17.4	80	75	77	
2376	Bawla	1933-34	12-7-34	30	10	..	..	..	..	7	160	9500	6.28	21.86	29.4	50.5	1485	20.2	89.0	2599	5	2.8	21.1	88	70	76
2376	Bawla	1933-34	12-7-34	34	10	..	..	..	..	24	151	9500	7.21	23.26	33.5	39.2	1313	33.1	76.8	2542	6	2.5	22.3	88	77	74
3630	Bawla	1936-37	28-5-37	14	10	10.6	8.0	0.4	18.9	7	207	8600	4.17	14.08	14.1	90.8	1280	13.8	208.2	2873	2	1.6	14.1	90	68	08	
3350	Bawla	1930-37	25-5-37	16	10	..	..	..	..	0	197	8600	5.04	15.97	16.8	71.1	1169	16.3	155.0	2526	3	1.8	15.2	90	68	60
3630	Bawla	1936-37	25-5-37	20	10	..	..	..	..	31	176	8600	5.95	17.08	20.2	51.9	1048	20.2	112.0	2562	4	2.2	17.5	90	07	67

• Diameter of ring frame front roller: $\frac{3}{4}$ " Diameter of rings: 1-4".

Diameter of ring frame front roller: $\frac{1}{2}$ ". Diameter of rings: 1-f".

Diameter of ring frame front roller: 1". Diameter of rings: 1-1/2".

It would be less than shown here.

3.—KADI COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1012	Kadi	1930-31
1318	Kadi	1931-32
2377	Kadi	1933-34
3165	Kadi	1935-36
3629	Kadi	1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	Kadi.				
	1930-31.	1931-32.	1933-34.	1935-36	1936-37.
Colour	White; bright	White; bright	Creamy-white	White to creamy white, brightish	White to creamy white.
Cleanliness	Leafy	A trifle stained; fairly leafy.	Very leafy with occasional stains.	Leafy.	A little leafy, a trifle stained.
Feel	Good	Good soft	Good	Good	Good
Ginning and Neppiness	Very well ginned	Well ginned	Well ginned	Well ginned.	Fairly well-ginned
Seeds	1% unginned	..	..	..	..
Card Sliver	Clean	Almost clean	Almost clean	Almost clean	Good; almost clean.
Card Web	Very good	Even and nep free.	Full	Even and nep free.	Good
Weight of 10 flat strips .. .. .	..	13.0 grams	20.7 grams	15.3 grams.	14.7 grams
Remarks .. .. .	..	..	..	..	Wasty in Blow room and card

(b) Yarn :—

	Kadi.				
	1930-31.	1931-32	1933-34.	1935-36	1936-37
Cleanliness	Clean	Clean	Almost clean	Almost clean.	Almost clean.
Evenness	Even	Fairly even	Even in the two lower counts.	Even.	Fairly even
Neppiness	Almost free of nep.	Practically free of nep.	Almost free of nep.	Nep free.	Fairly free of nep
Slubbiness .. .. .	..	..	A trifle slubby.	..	..

3. Spinning Test Details and Results :—See Table 3 on page 145.

II. GRADER'S REPORT* FOR KADI COTTON.

	Kadi.				
	1930-31.	1931-32.	1933-34.	1935-36.	1936-37.
Contract valued under ..	Broach ..	Broach/Dhollera ..	Broach ..	Broach ..	Broach ..
Class ..	Fine ..	Fine ..	Fine ..	Fine ..	Fine ..
Colour ..	White ..	White ..	White ..	White ..	Dull white ..
Staple Length ..	11/16 inch ..	15/16 inch ..	15/16 inch ..	15/16 inch ..	15/16 inch ..
Staple Strength ..	Fair ..	Fair ..	Fair ..	Fair ..	Fair ..
Regularity ..	Fair ..	Fair ..	Fair ..	Fair ..	Fair ..
Value above or below contract rate ..	Rs. 65-70 on ..	Rs. 15 on ..	Rs. 32-12 on ..	Rs. 7-8 on ..	Rs. 8-4-0 off ..
Basis ..	Rs. 205 ..	Rs. 170 ..	Rs. 196 ..	Rs. 200 ..	Rs. 249-4-0 ..
Date of Valuation ..	20-3-31 ..	5-5-32 ..	23-4-34 ..	1-4-36 ..	2-4-37 ..
Remarks ..	..	..	..	..	..

* Reports since 1933-34 are made by the mill supplying the sample.

Table 3.—SPINNING TEST RESULTS FOR KADI COTTON.

Sample No.	Season.	Date of Spinning.	Counts-Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY(%)	
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed M.P.M.	Spindle Speed M.P.M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-Strength Product.	Count Actual	Work of Reupturn (inch lbs.)	Count-Work Product.	Levelling Class.	Neeps per yard.	Turns per inch Actual.	Spinning Room.	Spinning Room.			
1011	Kadi	1930-31	20	8	10.2	7.9	0.9	18.1	57	182	8050	6.41	17.98	19.5	53.8	1161	10.9	103.8	2035	3	1.0	17.0	85	85	24.5	26	27
1012	Kadi	1930-31	24	8	..	..	..	..	50	162	9000	6.54	20.74	21.3	42.0	1035	21.1	85.4	2058	4	1.5	19.8	85	87	24	26	27
1013	Kadi	1931-32	20	10	10.5	7.9	0.7	18.1	105	104	9000	5.60	17.98	10.9	50.0	1156	20.3	101.4	2140	4	1.0	17.5	90	90	24	26	27
1015	Kadi	1931-32	24	8	..	..	..	..	24	108	9050	6.54	20.74	23.2	50.8	1173	23.1	95.0	2176	5	1.5	20.3	90	90	24	26	27
2377	Kadi	1933-34	20	10	11.2	10.8	0.7	24.0	20	105	9500	6.10	17.98	10.7	68.3	1310	10.9	118.6	2300	3	1.2	17.2	80	80	24	26	27
2377	Kadi	1933-34	24	8	..	..	..	..	41	178	9050	5.43	19.73	23.7	55.6	1315	24.1	95.0	2200	4	1.5	18.0	80	80	24	26	27
2377	Kadi	1933-34	24	8	..	..	..	..	50	151	9500	6.87	23.11	20.6	39.5	1140	29.6	75.4	2232	5	2.0	21.0	80	80	24	26	27
3165	Kadi	1935-36	20	10	12.4	8.2	0.5	20.1	26	191	9700	5.83	17.98	19.6	68.5	1313	10.8	110.8	2313	3	0.5	17.5	87	87	24	26	27
3165	Kadi	1935-36	24	10	..	..	..	..	41	174	9700	6.07	19.73	24.1	48.2	1162	23.2	97.4	2260	4	0.8	18.7	88	88	24	26	27
3029	Kadi	1936-37	16	10	12.2	8.9	0.5	20.5	50	193	8700	4.14	16.97	16.6	66.1	1102	10.3	139.8	2270	3	1.8	15.2	80	80	24	26	27
3029	Kadi	1936-37	20	10	..	..	..	..	42	193	8300	6.07	17.98	20.3	46.3	940	20.1	103.0	2056	4	1.8	17.0	90	90	24	26	27

* Diameter of ring frame front roller—1½". Diameter of ring—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

